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AUTHENTIC

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AUTHENTIC SCIENCE FICTION MONTHLY

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Editorial

THE DIFFERENCE BETWEEN AN ART AND A SCIENCE IS THAT one has to be learned while the other can be taught. With that definition in mind it is surprising just how many things are arts and how few are sciences. Hypnotism is an art—the only way to become a hypnotist is to practice hypnotism. Chemistry is a science—it is theoretically possible for a man to have a full knowledge of chemical reactions without ever handling a test tube, and all chemists know far more about their subject than they have practical knowledge. But good chemists are not satisfied with book-learning, they want to experiment for themselves. But chemistry is a science, a stated reaction between two chemicals will always occur, that is why it is a science. But cookery is pure art.

Basically, cookery is nothing but domestic chemistry. Certain ingredients are mixed together in a certain way, treated as specified and the results should be as predicted. Should be. How many amateur cooks have stared at the ruins of a cake? Pulled a face over a stew or wondered why, even though they followed the recipe, the results are far from as anticipated?

Writing is like that.

An author can take all the ingredients of a good story—plot, characters, a novel twist, an exciting situation—and yet when the story is written something is wrong. Like a cake baked by an amateur cook, it is flat, dull, heavy and unsatisfactory. And, like the unsuccessful cake, it is sometimes hard to see just what went wrong.

Writing, like cooking, is an art. The only way to learn cooking is to cook. The only way to learn how to write is to write. Mistakes will be made, but the experience gained in actually setting words down on paper is something no amount of teaching or book-learning can supply. A new writer can be told what is wrong with his story, or rather, he

can be told a better way to present it, but in the final analysis he, and he alone, must do the work.

Quite often I receive letters asking why this magazine does not run a story competition. The answer is simple; we do. There is a permanent story competition going on from month to month. Anyone can enter, and all entries are carefully read and considered. The successful win recognition in these pages, their stories are accepted, they receive the normal rates of payment and are automatically elevated to the ranks of professional authorship.

Like all competitions, there are certain rules to be followed. Entries must be typewritten, double-spaced on one side only of—preferably—quarto paper. All entries must be accompanied by a stamped addressed envelope for their return if unsatisfactory. All entries should carry the title of story, the length of story and the author's name and address. Simple? Of course, as simple as can be made, and this is one competition that is open to all without barrier on age, sex, occupation or amateur or professional status.

At this time of the year it is customary to send greetings and to make resolutions. I would like to extend to every reader the wish that he may enjoy a Merry Christmas and a Prosperous New Year.

It is going to be an exciting new year and I would like to see many more new names appear in our pages; many more readers contribute in a more active fashion. Perhaps you can't write a story, but most people can write a letter, and letters are just as welcome as anything else. Do you want serials? More long stories? More articles? You are in the position of the person who tastes the cake—let me know if you like it.

And there is one New Year's resolution I'd like every reader to make. My own is simple; to make the magazine as good as possible, as near to the wishes of the readers as I can, and to climb a little higher towards that 100%-perfect issue we spoke about. But will you do your part? Will you, each of you, interest just one new reader in the magazine in 1957?

Thank you.

E.C.T.



*To any nation prestige is of great value.
But sometimes a nation forgets that an
individual values it too. Then if the
individual is determined, there is trouble.*

PRESTIGE

by

KENNETH BULMER

EUGENE CARLISLE, A SMALL, HIGH-VOLTAGE MAN WITH A nutcracker face wryly twisted in amusement at the world's folly, waved General Flinders to the plastic armchair and pushed across a box of cigars. He waited in an appraising silence whilst his visitor lit up, aware that Flinders was sizing him up in turn.

General John Alleyn Flinders was not exactly what Carlisle had expected. It might not be so easy to sell him the bill of goods demanded by Sir Buford and the Ministry. He had been prepared for the edged glance from blue eyes and for the bristling white moustache and clean-shaven, grim-jawed old face. He'd foreseen the meticulous bearing and casual, almost lazy air of command; but he felt oddly uncomfortable when all those factors were combined in the flesh sitting opposite his own desk. He felt, he had to admit brutally to himself, like he had on his first reprimand.

Flinders smiled quite genially, and said: "Fine cigar, Carlisle. A pleasure to smoke one these days of synthetics. Now then, what did you want to see me about?"

Now came the hard part. It had been a quick and crazy erection of lies; it must be spacetight. Carlisle leaned back in his chair and said: "We've had news of Commander Flinders."

"News of Alleyn? That's good! Young devil hasn't written me in a couple of months. These damn Locusts are disrupting all the interstellar mail."

"I expect so, general." Carlisle swallowed, his throat dry. This wasn't going to be at all easy. There sat the old boy, upright on the edge of his chair, his craggy old face a mass of expectant smiles, just like a favourite horse before you shot it. A bad comparison, but vivid. Hell—get it over with fast. Carlisle stood up, began to walk up and down his synthipersian carpet, adding an extra burden to the taxpayer. Flinders' smile stayed on his face; but the quality changed. He sensed at once the chill that was blowing in the office—whatever the news of Alleyn, it wasn't good.

"Go on, Carlisle, tell me," he said quietly. The fingers around his stick were tallow white with the ferocity of his clutch.

"I'm very sorry to have to tell you, General Flinders, that Commander Flinders and all hands of TSS *Whirlpool* have been lost in space."

Flinders did not move. He still sat there, upright on the edge of his chair, holding onto his stick with the spike jabbing into the taxpayers' carpet. The expression on his face did not alter. And yet, Carlisle had the distinct impression that Flinders had been flung over backwards. There was a vivid image in his mind of the general lying all topsy-turvey on the floor. As though the stallion had tried to rear at the gunshot.

"I thought you'd like to hear personally," he finished lamely.

"When?" The general's voice was firm, steady, a little harsh, but completely devoid of emotion. "How? I'd rather like to know all the details, or as many as you know."

"Or as many as we'll tell you," a little devil voice whispered in Carlisle's mind. But, of course, the Space Navy and the Ministry of Public Relations had cooked up a spacetight story. They just could not slip.

Sitting down, Carlisle began: "There's not very much I can tell you, general. First of all may I say how very sorry I am?" Beyond the window the first thunder rolled out of the sky, conjured and ridden with scientific spur and bridle by geophysicists in the Bureau of Weather. Flinders waved a steady hand and Carlisle hurried on.

"You know the tricky balance of power that exists at present in our sector of the Galaxy. With something like ten alien races, all with their little backyards of solar systems to watch and to persuade to be friendly to us, we never seem to have enough ships to go round. I suppose you must have experienced something similar in the Army. But, as a Terran, you'll understand we must have the friendship and hence the co-operation of all the other races in our segment of the Galaxy."

"All this is pretty common knowledge."

"Precisely. It explains why your son did what he did." *And that was too near the truth.* Carlisle pointed to the celestial sphere at his elbow. "You'll be familiar with this in the Army—of course, stupid of me. Well, now, here is the Solar Confederation. And along this track, leading through the Centriga group directly towards the Solar system, come the Locusts."

"Yes, it's almost as if they know we're the people to be feared. As though they intended to dispose of Earth and treat with our allies."

"They'd treat with our allies at once if it wasn't for the big stick we have."

"And Alleyn was one of those wielding that stick?" Flinders' voice still held that cold barrenness of emotion.

"Commander Flinders was entrusted with that high

honour——” At the general’s explosive “Humph!” of disgusted negation, Carlisle said, urgently: “It *was* an honour, general! I can fully sympathize with you and understand your feelings now. Therefore, I say to you that your son was highly honoured in being given command of a ship equipped with a Waxford projector.”

“He didn’t mention it to me. Told me *Whirlpool* was a—kittenish little kite, I think his words were. He seemed very pleased to get her.”

“They were on a regular standing patrol with the usual orders and they ran into a Locust ship on a raiding mission.”

“They were alone at the time?” Flinders said sharply.

“Yes. As I said, general, there are never enough ships.”

“I see. Go on.”

“There is little left to tell. TSS *Whirlpool* made the usual identification and attacked. They were not actually fired upon during this period; the Locusts have nothing like the Waxford. As soon as the Waxford was brought into action, of course, the alien ceased to exist.” Carlisle stared at his hands. “Signals from *Whirlpool* broke off shortly afterwards and subsequently the ship was discovered drifting dead with all hands. No one knows exactly what happened. There might have been a second Locust ship. There is a strong possibility of accident. There might have been any of a hundred different things.”

“But nothing will bring my boy back.” Emotion showed ragged in Flinders for the first time. At Carlisle’s fleeting expression, he said: “All right. I won’t crack.”

“What do you intend to do?”

“What is there to do? Go home to Chartlands and try to forget, try to build what’s left of my life into a trifle worthwhile. All futile; but any other course will land me under the psychoes. No, thank you, they’re not for me.”

Lightning split the night and runnelled a patch of fire across the room. Fluorescent wall panels had brightened

with the darkening horizon, unnoticed by the two men; the illumination exactly matched the needs of their eyes. With the abrupt crack of lightning they started.

"Damn weather!" Carlisle cried, shaken.

"They did warn us." Flinders shook out his paper. "Special show for the Centrigon Ambassador. Here it is, and, if you read between the lines, you see just how important these outlying systems are to us." There might have been bitter irony in his words. Carlisle played it carefully.

"There are few people who know that better than I," he growled. "And to placate them we put on circuses of thunder and lightning storms. But the real power is the Waxford. Whilst we have that weapon they'll respect us, stay in line and steer clear of treating with the Locusts." He jabbed a finger at Flinders' paper. "Look, the report of another Locust ship destroyed. That makes seven this month. They're stepping up the intensity of the raids. Like the old Vikings, or Corsairs. Streak in, blast and destroy and loot, then out, fast."

The subject that intrigued all Earth drew a spark from Flinders. "It's pretty certain now they're not a racial invasion, or migration, or any governmental level project. They're pirates, I'd say, out for adventure and quick loot. Private individuals out on the loose."

"That may be. It's one point of view. But whilst we can basket most of 'em and knock 'em off with the Waxford, we're all right. But once let them get it too easily, break past the Terran screen, and our oh-so-loyal allies will start a squawk that'll bring the Locusts in like flies round a dead lion."

"So you think they can read our messages?"

"Certain of it. Their broadcasts are just gibberish to our philologists; but I'd wager a year's pay they can listen in to us whenever they please."

Thunder split again outside and now rain lashed at the windows, giving to the room a cosy feel under the lights.

Flinders shook his head and stubbed out his cigar.

"Have to be getting along, Carlisle. Thanks for telling me like this. Nothing left for me to say now."

Carlisle stood up as Flinders rose. "I'm very sorry, general," he said. Flinders knew he meant it. They walked to the door in silence and then Flinders said: "What about the body?"

"*What's that?*" Carlisle blurted before he could stop himself. Then, with forced composure whitening his nostrils: "All the crew were given a decent space burial, general. It was better that way."

"I see. May I speak to the officer in charge?"

"That may be a little—difficult." Carlisle added hurriedly: "He's been posted away somewhere on the Rim."

"In a direction completely away from the centre and the Locusts," commented Flinders. "A pity. I've been thinking of going out to Centriga myself. Just to get the feel of that sector of space, you know. Like to see the same stars Alleyn did before he died."

Beneath his bland features, Carlisle was fuming. Just as he'd wrapped it all up neatly, the old buffer brought out this bombshell. It would be dangerous if he went to Centriga. Carlisle doubted if every single angle had been covered out there. And as for this suddenly inspired story of a solemn burial in space, well, that could be punctured by the most elementary questions at records.

The Ministry would have to write in a completely new record of a fake burial, that was all. And their clerks would be up all night doing it, too. And then they'd have to be psyched to forget, afterwards. This mess spread . . .

"It may be a little inconvenient going out to Centriga right now, general," Carlisle said pleasantly. If he was clumsy now, made anything out of the ordinary of this request, then the old buffer's ire would rise and he'd raise the Space Cavalry to get himself out there. Any hint of

obstruction now might cause a lot more trouble later on. So far, things had gone smoothly—let's keep 'em that way. If Sir Buford suspected that there had been friction, then Carlisle could start looking around for another job—knowing he'd never find one.

"Well, I'll look into it then, Carlisle. Take it up with the right department. Many thanks for your help." Flinders stuck his hand out. Carlisle, taking it, noticed the horny palm and rough skin; the man did plenty of gardening. It was going to be all right. A feeling of relaxation, of pre-reaction, swept over him.

"Can you send me on the photos of the burial?" General Flinders said.

This time Carlisle managed to stop himself from saying anything at all until his brain was ice-free. Then, quietly, he said: "Certainly, general. My omission, please forgive me. I'll see you get them at once."

"Thank you," said Flinders.

There were no photos of Commander Flinders' burial in existence.

There had never been any such burial.

But Carlisle knew that tomorrow beautiful glossy-eight by ten prints would be on their way to General Flinders at his hotel. When you lie, you lie big. And when you have a Government behind the lie, you can make it stick.

Generally speaking, that is.

General Flinders walked down the steps of the Navy Building in the rain, a very different General Flinders who had run up those steps. Rain pulped his soft cap. Lights stretched long arms towards him over the slick pavement, and passing gyrocars hissed mournfully. As though coming to a painful decision, he swung on his heel—water spurted with the violence of the movement—and went, head down, into a garish bar. He found a table back under the window

and ordered a fifth of Scotch. The bottle and glass came. Flinders stared at them morosely. In the bottle was a certain measurable amount of forgetfulness. He took the first drink.

A naval officer bustled into the bar, shaking rain drops from his cloak, and ordered in a loud cheery voice. The scar of a recent wound lay like an almond against his ruddy forehead. He was greeted exuberantly, Space Navy style, by a cluster of other deepspace types at the far end of the bar. Flinders, attracted by the noise, looked up.

Like the eruption of a springing tiger, Flinders leaped forward, knocking his table and the whisky in opposite directions, and gripped the cheerful naval officer by the arm.

"You!" Flinders said hoarsely. "You're Tom What's-your-name. You served with Alleyn!"

"Hey! What's the idea, granpop? Leggo my arm, you're chewing it off."

"I'm sorry." Flinders reluctantly released the other's arm. He drew a deep shuddering breath. "Please listen to me. You are Tom. You served aboard TSS *Whirlpool* with Commander Alleyn Flinders. Why, you even spent a weekend at Chartlands, playing tennis. Remember?"

"Sorry. My name is Tom Melville, yes, but I've never seen you before, sir. And I don't know any Commander Flinders. You must be mistaken."

"Tom Melville. That was the name. And I'm not mistaken!" General Flinders was completely certain about this, now. "You drank four bottles of my Venusport '89. Alleyn and I had to put you to bed."

"Are you insinuating——" began Melville.

"That sounds like you, Tom," one of his companions sang out. The others burst into uproarious laughter. Melville flushed, then, softening his tone, said: "Look, sir, you must be mistaken. I just don't know what you're talking about."

"I'm not absolutely certain myself." Flinders hesitated. He couldn't quite accuse this young man of coming back from

the dead. "You are positive you never served aboard TSS *Whirlpool*? You don't know Commander Alleyn Flinders?"

"Oh, the old Whirly, yes. I served half a commission on her. Kittenish little kite. Got hoicked off and sent to battle-cruiser course. I've never heard of this commander, though, sorry." He drew his brows down. "I hear that the old Whirly bought hers recently——?"

Flinders nodded numbly. Something was not quite right, somewhere; but what it was he didn't know, nor did he have any idea of why he was acting like this. His whisky had soaked across the floor. Over his shoulder, going to the door, he said: "Thank you, Mr. Melville. Sorry I troubled you." Outside, with his old cap pulled down, he hailed a cruising cab and went back to his hotel.

He felt an inner conviction that he was not mistaken about Melville. The man could have left Alleyn's ship earlier; but why insist he'd never met him? Whatever mystery that incident concealed must wait. He felt far too tired even to think straight. Except for Alleyn . . .

Against an unfamiliar background of frosty, multi-coloured stars, a slender metal cylinder, wrapped around by the pitiful dignity of a flag, slipped away on the beginning of its long and empty fall into a sun. The small group of space-suited men who had launched the coffin—it was an empty gas cylinder, s.o.p. in the space services and chargeable to public funds—were standing frozen at the salute. Beyond them was just discernible the curve of a cruiser's airlock.

Against the uncaring background of space the ceremony was like a red rose, flung down in lieu of a gauntlet.

"A nice piece of work," commented Carlisle, sorting through his mail the following morning. He thrust the photos in the Flinders file and forgot them in the welter of work that had to be cleared to keep the Navy running.

General Flinders looked at the photos with very different

emotions. He hadn't slept much and his cheeks were puffy. He'd not bothered to shave yet and stood in his dressing gown staring at the photos again and again, unwilling to put them down. In that metal gas cylinder was Alleyn. It just didn't seem possible; quite fantastic, really, when you thought about it soberly. That Alleyn, his son, should be in that metal tank, being thrown into a sun—steady, he warned himself. Have a shower. Freshen up.

The telephone rang. Cursing, and cutting out the video, he answered.

"A Miss Finlay to see you, sir."

Half a second's rapid thought decided Flinders. He couldn't let Chris hang around in the lobby whilst he shaved and dressed.

"Ask Miss Finlay to come up. But warn her I'm not fit for human eyes yet."

He clicked off the phone and went through into the bathroom where he ran a comb through his hair and smartened up his white brush moustache. Christine Finlay rang, and when Flinders opened the door, bounced in, flung her arms round him and hugged him.

"Good to see you again, you old grizzly bear," she said, laughing.

Her vivacious, high-spirited face was fresh as a snowdrop, perfectly framed by golden hair.

"What are you doing here, anyway?" demanded Flinders.

"Had to come to town and decided to find out what you were up to. Is it news of Alleyn?"

"Yes." Flinders turned away to hide his face, and, breaking a habit, pulled out a cigar and lit up before breakfast. It tasted foul and he threw it into the disposer.

"Well," Chris said, all the merriment gone from her face. "Tell me."

"I saw the Naval Secretary last night. Feller called Carlisle. He told me that Alleyn and his ship were lost. All gone."

Then she was in his arms and together they fought back the blackness of sorrow and despair. Presently, when they could talk coherently, Chris asked: "What are we going to do?"

"Funny you should ask that. Same words Carlisle used. It's as though it was the end of the world for us."

"But of course," said Chris, tossing her head back. "It isn't, is it?"

"No." Flinders told Chris about his meeting with Melville. "I was thinking of contacting all the families of Alleyn's crew. It's the done thing, you know. But, well, I think I'll wait it out a bit. Melville is interesting."

"But I remember him. Beefy guy with good shoulders. Very young and desperately anxious to become Alleyn's exec. Yes, he was also trying to cut Alleyn out with me all that week-end—what a hope." Her fingers gripped together more tightly and her words were brittle. Otherwise, apart from the brilliance of her eyes, there was no sign of her raging anguish.

"I should think he would remember Alleyn," she went on. "Even if he was transferred to battlecruisers. What say we stroll down to that bar again and have a chat with him?"

"Could do. Anything rather than hanging around here. I shall have to go back to Chartlands at the end of the week, anyway."

Tom Melville, when they reached the bar and made enquiries, had been posted to the Rim the night previously. The barkeep was loquacious.

"Navy Police came in here like we was a no-good dive. Gave this Lieutenant Melville his orders. Right after you left last night, sir." The bartender obviously remembered the spilled bottle of whisky. "He dashed out, all red and raving mad and then I hear he's been posted to a Rim system that's as dry as the Sahara used to be. All his pals laughed. But it ain't so funny for him, I guess."

"Surely that isn't normal procedure in the Navy, John?" Chris asked Flinders when they were outside.

"I may be army," the general said, swinging his stick. "but I don't think any rapid posting ordered in a bar is normal in either service. You know, Chris, there *is* something fishy in all this. Melville could have been psyched and hypnotized into forgetting Alleyn. Oh, I'm not romantic enough to suppose Alleyn is still alive——"

"I don't know." Chris had a sudden catch in her voice. "This might be a scheme of Navy Intelligence to free Alleyn for a special mission——"

Flinders touched her arm. "Don't bank on it, my dear. But something is very definitely not genuine, and I mean to find out what it is."

"I'm with you, John," Chris said. They went down the street together, the stiff old warrior and the lissom lovely girl, as though they were together on a crusade.

Rodriguez Simpson Villavieja cut a black cheroot, inserted it neatly between indecently white teeth, drew it to flame, flashed those teeth in a smile through the smoke as he exhaled, and politely said: "And how can I help you, my dear General Flinders?"

Flinders told him, succinctly, if not outright brutally. When he had finished the swarthy, smiling army secretary was grave. He fiddled with his cigar and glanced covertly at Chris, who sat fresh and inconspicuously lovely at Flinders' side.

"Offhand, general, I'd say your request was completely impossible. But, knowing you as I do, I feel in my bones you'll turn something up. And so, come back here the same time tomorrow. I'll have the records then. If not, then a genuine excuse. Good enough?"

"Good enough, Roddy, and thanks. I won't let the old academy down, don't fear."

"I wasn't worrying about our dear alma mater, Flinty, I was thinking of the poor devil—whoever he is—you're after."

"That's just the trouble." Flinders spoke slowly, eyes half closed. "Would you believe me if I told you I don't really know how I feel about this? I'm not after anyone; that is, not yet. I don't suspect foul play in Alleyn's death. It's just that, well, something isn't quite right."

"Very well, Flinty. Come back tomorrow and we'll see what I've turned up."

During the rest of the day, with Weather providing a pleasant seventy degrees and suitably fleecy white clouds, Chris and Flinders made other enquiries. As a matter of course, they concentrated on bars and amusement centres, asking casual questions, hoping, with diminishing eagerness as the day lengthened, that they might turn up some little clue. Something like the Tom Melville thing. Flinders cursed himself for being fobbed off there. He should have been more persistent. Quite obviously, he had been followed, his conversation with Melville reported, and the unlucky officer had been immediately ordered off to the limbo of the space services along the Rim.

This was Navy ground. They did have hopes that someone might know something he didn't know he knew. All they heard was that two more Locusts had been caught and the Centrigon ambassador and his staff were being given a whale of a time. They got that information from the radio.

Walking up to his old friend's massive office the next day, Flinders was suddenly struck by the comic quality running like a buoyant thread through the tragic tapestry. The picture of an old, broken down warrior and a gorgeous, golden-haired girl setting out bravely to search a city's bars for clues to a death that took place over a thousand light years away in space—no; it wasn't funny, at that. Just tragic, all the way through. They went in, to see Villavieja with a cigar between his teeth and a frown disfiguring his classic forehead.

"I made tentative enquiries," he began at once, before his

two visitors were seated. "And what do I find? Nothing at all. The reports, they are here. Yes, says my friend the Naval Secretary, you may look at them with the greatest of pleasure. I do so. Is there a smile in Carlisle's eyes? I do not know. I look at the reports. I photograph them." He took the cigar from his mouth in a helpless gesture.

Flinders picked up the photographic prints and studied them. Chris came round to stare over his shoulder. One rapid reading convinced them that what Villavieja had said summed up the position.

The great advantage of written reports over tape recordings is the facility for rapid study. You can skip over pages of manuscript, picking and choosing information, your eyes attracted by subheads. Try speeding up a tape recording—gibberish. The reports of the action of TSS *Whirlpool* were given in the form of radio signals until the final instant of darkness. Then came a deposition from a Captain Von Bernhardt, TSS *Guillaume Tell*. It very briefly covered the radar interception of *Whirlpool* and the discovery and burial of all hands. Copies of the photos Flinders had received were clipped to the reports.

"I regret, Flinty, if my shots are not too clear. I had some difficulty in focusing my cloak buckle. I had allowed for one foot; but I couldn't get the reports closer than eighteen inches off that old fox Carlisle's desk and there really wasn't enough light—still——"

"You did fine, Roddy. My sincere thanks. However," Flinders drew a frustrated breath, "we're not much forward. This doesn't tell us anything new, except the next name to see."

"Von Bernhardt? If your experience with Melville is any criterion, Bernhardt will be on the Rim."

"So Carlisle said." Flinders nodded agreement. "I think it's time I brought in professional help."

"How do you mean, John?" asked Chris.

"Simple. Hire a detective."

Both Villavieja and Chris began startled protests. Villavieja stopped talking, allowing Chris to say: "But you can't hire a private eye to work against the government!"

"It's not quite as simple as that, dear——"

"But that would be treason, man!" exploded Villavieja.

"I don't see that at all," said Flinders huffily. "All I'm doing is hiring a man to go out to the Rim to make some enquiries for me because I can't go myself. That's all. There's no treason in that."

"But that's not the point!" Villavieja stubbed out his cigar with a good three inches to burn. "You're acting overtly against a government decision. They've stated a fact and you disbelieve that, and are actively opposing them."

"Well," said Flinders, his voice booming out in the big room, "if thinking a man can make a mistake and trying to put it right is treason, then I'm a traitor and ought to have my head cut off!"

"Oh, it's not like that," Chris said, halfway between laughing and crying. The old boy was so magnificent when he climbed on his charger. You could almost hear the snicker of his blade as it left the scabbard and see the sunlight glancing off the serried lances waiting to follow him. He should have been born into that magic age when men acted flamboyantly, instead of into the present, where slivers of steelalloy were calculatingly flung billions of miles through the emptiness between the stars. But the old boy could never be ridiculous, that was for sure.

"So you hire yourself a shamus," Villavieja said. "And he sees Von Bernhardi. What then?"

"I don't know. That's the stupidity of the whole thing. I just feel something is wrong. Maybe my detective won't turn anything up. Maybe he will. At least, I intend to try." Somewhere, surely, a trumpet was shrilling—charge.

The TV networks and the few remaining papers—catering for people like Flinders who liked to read their news in their own sweet time—were full of the treaty.

CENTRIGAN ENVOY SIGNS 100-YEAR TREATY

CENTURY CENTRIGA PACT

The writeups were flowery and heavily phrased with goodwill messages from all the names who could finagle into the act. The facts, that this treaty meant better conditions for Centrigans in this segment of the Galaxy, were there to read. A strong and united front was to be presented to the Locusts. All raiders to be destroyed on sight. Terra to continue this duty. High hopes of more races joining the solar circle.

Not a word, anywhere, of the Waxford projector.

Cynically, Flinders wondered just how many people, seeing this news on their TV or reading it in the photolithoed papers, knew how large the Waxford figured in the picture. If Earth didn't possess the Waxford, the projector that *whiffed* ships into nothingness from hyper-space, then the whole coalition would fall to pieces and the alien races would be screaming to the Locusts for treaties and friendship, cost what it might. The Centrigans might be aliens, but, compared with Locusts, they were as friendly as the pup next door. And after what the Locusts, be they individual pirates or a racial ripp'e movement, had already done, streaming in a black line from somewhere in the centre of the Galaxy to rend and destroy, no one could harbour any false sentiments of what would happen next. Earth, most certainly, would not survive.

Flinders put down his coffee cup and shouted: "Come in!"

The man who had rung, opened the door and stopped on the threshold, looking keenly around. Flinders saw a broad-shouldered, tawny-haired man with the look of a panther about him. His face, visible after he had removed his wide-brimmed hat, was so commonplace as to evoke no spark of interest from the most desperate of maiden ladies. He walked

towards Flinders slowly as the general rose and extended his hand.

"Mr. Wolcott Redvers? Glad you came so quickly. As I explained on the phone, I have to leave for Chartlands tonight. And there's a great deal to be done."

"Perhaps you'd better tell me the full story."

"Of course. Sit down. Have a cup of coffee." Flinders motioned to a chair. Redvers sat with the lithe disjointedness of a great cat.

"No coffee, thank you, general. Artificial stimulants are the disease of our society."

"Yes. Very likely," replied Flinders, too occupied to be surprised. He rapidly outlined what he had done and found out in what was already docketed in his mind as the "Alleyn Case." Gruesome, horrible, yes; but pitilessly logical. It was just a case, like any other.

When he had finished, Redvers said: "And, as far as you are aware, there is absolutely no question of murder or anything at all wrong with the explanations given you as to your son's death?"

"That is why I called you in, Mr. Redvers. There is absolutely nothing upon which I can put a finger and say definitely: 'This is wrong.' But, if you can believe an old man talking about his only son, I feel, I deduce, I sense, that something is being withheld from me."

"Had you considered that it might be something to your son's disadvantage? That he might have turned yellow?"

"I had thought of that. I am sure it is impossible."

"I see." Redvers sat silently in thought. "I will take your case, General Flinders," he said at last. "It will cost you a hundred a day, plus expenses."

"Done," said Flinders. "Now, I suppose, you'll be after Von Bernhardt, along the Rim?"

"No, sir. I'm conducting the investigation along my usual lines, and I think I know a better starting point." Redvers

picked up his hat and stuck out his hand. "Good morning to you, sir. I'll contact you at Chartlands—I have the address—in two days' time." He shook hands and was gone.

Flinders stared after him, a vague feeling breaking over him of having conjured up bigger medicine than he had anticipated.

Surely there wasn't any truth in Villavieja's maunderings about treason? Flinders shook himself angrily, trying to rid himself of the cold shiver that had rippled over his body. He'd trust his own judgment in this, and stand by that hunch he had that things were not what they seemed in the Alleyn Case.

Wolcott Redvers was under no illusions as to the general state of sinfulness and decadence and damnation of the modern world. He deplored the widespread use of drugs and apparently innocent little pinches of narcotics. Tobacco and coffee he fought like twin devils. He also slept without a pillow as being more conducive to healthful rest. But all this did not prevent him from being the slickest private eye operating out of the city.

The only outstanding feature about him was the curious slatey colour of his eyes, which was why he habitually kept his eyelids half closed. Under the plain flare of his synthitweed jacket he carried a Morgan-Pownall '97 one millimetre hand blaster that could be unlimbered and in action, blowing away pieces of anatomy, in something under a fifth of a second. He was not proud of this, and felt a moody presentiment every time he went into a gun battle that this time was the last.

Although, at the moment, guns were of no use at all.

Neither were a vast number of the electronic devices of science. He edged more carefully along the narrow stone ledge as wind sucked at him, trying not to think of the thousand-foot gulf beneath, felt if not seen in the gusty darkness.

When he'd first been approached by General Flinders, his first reaction had been an emphatic refusal. But something about the voice and sight of the old buffer had held him. The old boy's forthright story, with his frank acknowledgment that he had no proof, had bound the final links about the detective. This was the sort of case he had to take just to prove to himself that he was a private detective and not a posturing success monger with an inflamed keyhole eye.

Wind plucked at his cloak and flailed it away from his shoulders like a flag. He clung, gasping, the suckers on wrists and feet holding to the sheer stone wall until the gust passed. Then he carefully re-arranged his cloak with one hand and inched further along the ledge. The stone against his face smelt of chalk and rain. Not much further now to the window that, in the plan he carried in his head, was marked with a blood-red cross. Finding out just which window was the window he required had taken longer than expected. The two days to report to Flinders expired this coming morning, and already it was past midnight and everything to be done.

It had been relatively easy to get onto the right contacts; that was his job. But he had never met such stubborn reluctance to unclam, to open up with whatever information there was. And the more he found out, the more he realized there was to uncover, which, naturally, was always the way. By sheer dogged perseverance and a little judicious mixture of cash and cosh, he had persuaded a signals orderly to talk.

And that, he tried to see objectively without any twinge of fear, left him squarely in the camp of treason. Suborning a member of the armed forces with drink and bribes! What hex had that crazy old coot, who reminded him of King Arthur, put on him? That was all beneath him now as he crawled across a wall above a sheer thousand-foot drop.

This wouldn't be the first time he had broken into a government building; he only hoped it was his last. The thought of all the electronic and nucleonic wizardry in

breaking and entering that was denied him because of similar ingenuity in detection and prevention irked him but little. He used his portable heterodyne to shut out the window's keying frequency and locked it when the two pulses matched. The rest of the defences were simple. The police relied on their electronic devices—and the heterodyne, by its very nature, was masked by the key it was obliterating—when protection was needed this high up. Redvers was beginning to think they might be right.

Then he slipped his sliver of non-conducting plastic between window and stone and manually tumbled the electrically inert keys. He pushed the window open and allowed himself to fall inwards. As he had known he would, he rolled, unhurt, on thick carpet.

His pencil flash inserted a narrow tongue of light through the room's darkness. The filament radiated at too low a power to be picked up as an unauthorized energy source on the guardroom's screens. Which Redvers knew.

He cased the office swiftly, centred the light on the wall safe. Now began the part where, if caught, he could certainly be sent to the penal asteroids. He chuckled. That old buffer Flinders had a way of inviting you to commit mayhem on his behalf. Redvers' nimble fingers caressed the safe. He used his stethoscope. Finally, he cancelled out the safe's alarm with his second heterodyne, twirled the tumblers and swung the door open with the air of a conjuror modestly presenting a rabbit.

That part had followed the pattern of his crawl here along the wall. Atomic appliances would have made most of all this easy; but they'd also have brought a couple of regiments of guards. Wolcott Redvers did pride himself on his non-mass-production, hand-made attitude to his profession.

He went through the contents of the safe in three minutes flat. He found the oblong plastic-wrapped package he wanted, unwrapped it and brought his mini-camera into

action. His fingers were perfectly steady as he shot frame after frame of the typewritten manuscript; but from the briefest glimpse he allowed himself of its contents, he knew he was holding a bombshell that could shake the government. Almost through the bundle, camera poised for the final strip, he paused, hearing his breath catch in his throat.

He swallowed, trying to clear the dull thump of blood from his hearing, trying to listen . . .

Clear and distinct, footsteps, drumming arrogantly down the corridor, galvanised him into smooth, unflurried action. Pack everything away leaving no trace. Shut the safe and twist the locks. Remove heterodyne. Everything into pockets. Across to the window. Outside on the sill. Shut window. Remove heterodyne. Crouch down, one eye peering into the office. Wait.

It didn't matter if the footsteps went past the door and all this rapid, stealthy movement of tidying up was wasted. The person out there might come in. That was reason enough in Wolcott Redvers' book. He crouched, waiting,

The door opened, light springing across the window and forcing him to close his eyes. For a moment he could not see. Then, as his eyes' chemical factory got to work, he saw Carlisle sitting at his desk, head propped by one hand, reading a batch of papers taken from the open dispatch case.

The Naval Secretary looked as though he was set for the night. Redvers debated. He had nearly all the information from the oblong package marked '*Whirlpool*.' To wait for Carlisle to leave and then repeat the process of opening the safe might take long enough for daylight to catch him. He'd better call this a night's work and depart.

He freed one hand from its suction cup and felt under his cloak, checking his anti-grav. If he fell off the wall in his antics crawling back he wanted to be able to fly down safely.

Thinking regretfully how easy it would be just to push off and float down to the street, he began the difficult climb back across the sheer face of the wall towards the ledge round the corner. Wind shrieked at him. His fingers were numb in the heavy gloves; if he'd had to cling on without suction cups he'd long ago have fallen. No betraying electrically-heated clothing for him tonight.

By the time he'd made it back to the ledge and from there to his rope ladder dangling to a lower level, he felt almost exhausted. The physical exertion alone would not have tired him so much; it was mainly the oppressive feeling of the whole awful weight of authority he was bucking.

He dropped down the ladder lumpily, shrunken in his cloak. A single jerk freed the rope and he coiled it loosely over his arm. He walked away from the wall across the roof to the next descent and re-commenced the whole grisly business.

This time he must have done something wrong.

Above him, searchlights screamed against the blankness of the wall he had just quitted. They probed like the gaunt fingers of a madman through a trashbin, dissecting, flaying, spilling circles of devilish light into safe dark corners.

Redvers almost fell down the wall, dragging the rope ladder after him. He bolted for the next parapet in the scientific ziggurat and crouched, panting, wearily conscious of the rest of the descent below him.

He'd been a thousand feet up when he'd cracked Carlisle's safe. He still had a good seven hundred to go. And he daren't use his anti-grav. Walcott Redvers, slatey eyes agleam there in that hellspot, almost broke a golden rule and swore.

Presently, he chanced a further descent and dropped successfully on his ladder to the next jutting platform. Round the corner he had left where the building rose sheer for a thousand feet, the searchlights were going mad. In the shadows, he made more footage downwards.

At last, with a chuckle and a thankful gasp, he had laboured low enough and far enough from the guardroom to be able to operate his anti-grav. He pressed the starter button and floated off, away into the grey obscurity of the early morning streets of workers, sardonically thumbing his nose at the racket his anti-grav would be making on the guards' screens, and feeling lazily confident that they couldn't catch him.

Wolcott Redvers, private eye, had just wrapped up another case.

Eugene Carlisle punched his initials into the seals of the tape canister addressed to a cruiser whose captain, mistakenly, thought he was coming into Marsbase for a leave. It was always ships. Scattered across the Galaxy in the sections so far opened up by homo sapiens, tiny scraps of the mother world beat across the void. If the whole fleet had been miraculously doubled, there would still not be enough ships. Opening up a Galaxy, retaining the friendship of alien races, maintaining a power balance, containing the Locusts—Carlisle wanted ships and more ships.

Instead, his secretary brought in the morning's mail. Carlisle had been at his desk since just after midnight, had cleared two men's work, and here was a fresh batch, limp and waiting. He sometimes wondered why he'd been crazy enough to become Naval Secretary in the first place. Villavieja, now, in the army, had a cushy enough time of it—

Glancing rapidly through the morning papers he saw the page four, three-inch write-up of the latest Locust ship interception and destruction report. Page one had a two-column lead on the lurid details—such as they were—of the attempted break in last night at Naval Headquarters. He'd seen no need to keep it quiet. It would serve as a warning. You just couldn't break into this building with its interlinking mesh of electronic alarms. That the persons attempting it

hadn't been apprehended merely meant that they'd scuttled fast, as soon as the alarms had been tripped. Carlisle jabbed his dead cigar into an overflowing ashtray and went back to his reports.

Yes, just as he'd thought—Captain Von Bernhardi was due to return to Marsbase with *Guillaume Tell*. Just as well he'd checked on that. It would have been awkward if old Flinders had met up with Von Bernhardi before the psycho squad got to him. Carlisle hummed to himself, absent-mindedly picking at a shred of tobacco on his lips. Better to re-route Von Bernhardi to Proxima and have him psyched there. Pity he couldn't trust the psycho technique all the way; he wouldn't have had to post Melville then, and open a possible chink in the armour of the gigantic lie.

Whatever happened, Sir Buford must never have any suspicion that the affair hadn't been handled smoothly.

Now, if construction on the new *Fleetwood* class could be speeded—Eugene Carlisle went on grumbling to himself about the duties and cares of a Naval Secretary. Yet he knew he wouldn't change his job with anyone else in the Galaxy.

The study was very quiet. The tinted waterfall at the south end had been shut off and gentle bird songs muted until they were barely background. General Flinders sat in his formfit, his face rigid, his eyes devouring the photographed lines of typewriting. Wolcott Redvers sat loosely opposite, chewing a barley-sugar reflectively, not caring to intrude upon the world being created by the printed words in the mind of this stalwart old soldier.

General Flinders absorbed the words. He read doggedly through all the official preamble and then concentrated on the meat. Time ticked by.

Intelligence Captain: Your name and rank, please.

Witness: Lieutenant Thomas Melville, TSN.

I.C.: You were executive officer of TSS *Whirlpool*?

W.: Yes.

I.C.: Would you tell this court exactly what happened on your last patrol in *Whirlpool*?

W.: We met up with a Locust raider twenty degrees off Centriga and destroyed her.

I.C.: And——?

W.: You want the whole bloody business?

I.C.: Precisely. Everything. Just as it occurred.

W.: All right. Well, you asked for it. And it isn't pretty. We were sixty days out, travelling easy, and Commander Flinders was as eager as all to get out to catch a Locust—well, we all were, come to that. You gold-braid-suffocated brasshats have probably forgotten what it's like to be a member of a light cruiser's crew. A hundred men, wrapped in the blanket of navy discipline, and yet each one dependent on the others—you get a sort of understanding, a spirit of comradeship that you'll never find in a million years in the cities of the planets. Yes, and when you consider that *Whirlpool* wasn't exactly what you'd call a luxury liner—the only thing that made the kite beautiful to us was that damn great Waxford sticking out of her backbone—we hadn't done so badly. Anyway, at 1300 hours Lieutenant Rogers, he was Communications Officer, had a blip at two o'clock, 80 degrees, and we turned on an interception bearing.

Commodore Hornung: As Lieutenant Melville's squadron commanding officer and responsible for appointing such a young officer to be exec to Commander Flinders, I should like to put on record that his somewhat frivolous comments regarding high-ranking officers stem purely from battle fatigue and that——

I.C.: Thank you, commodore. I think the court had already decided along lines similar to your own generous interpretation. Lieutenant Melville?

W.: Well, as I was saying, we headed out towards this contact and, presently, Rogers sings out: 'Locust, Locust,

Locust.' Then we knew we had a grade A Red Alert. Commander Flinders handles the kite beautifully, calm as an iceberg, brings her round so we can shoot from a matching course.

These Locust ships are big, rangy cruisers, with lots of conventional armament in the way of energy weapons, and with a nice turn of speed in their hyper-space sphere. You have to merge your own sphere with theirs, of course, if you use conventional energy weapons; but the Waxford can be used directly from hyperspace, which is what makes it the weapon it is. Although I still don't think it's the ultimate weapon everyone yaps about. Sorry, sir. Well, we position ourselves, and young Lieutenant Kernahan—he's our new gunnery officer—licks his lips and looks at me and I give him the old high sign which cheers him up.

Then Commander Flinders says: 'Fire when on target, please, Mr. Kernahan,' and I'm watching young Kerny, and he screws his eye into the sights and aligns his radar which will fire the fatal shot. I see him press down on the firing button, but I don't hear the usual crackling noise and the lights don't dim from the extra energy sucked from the dynamos.

Old Flinty says, quick as a flash: "Fire on second emergency procedure, please, Mr. Kernahan." That means that he knows something's wrong and is more or less nudging young Kerny along into doing his duty. Well, Kerny tries again, and still nothing happens. So Flinty breaks off action at 1530 and tells the armaments crew to strip that Waxford down and put it into firing trim, pronto. I saw the way those armament guys jumped when he spoke to them—old Flinty sure had what it takes to be a cruiser commander—or a leader of men anywhere, come to that.

We trail along after the Locust, keeping out of range of a possible jig back by him, and outside our hyperspace sphere all the stars in creation are rushing past, which means that

we're slowing down, and that we're also getting far too near Centriga, and those fat merchant ships that wallow around between the suns out there.

At 2245 Young Kerny comes up to Flinty, and I'd swear there are tear tracks down the oil smudges on his cheeks. "Have to report, sir," chokes out Kerny, "that Waxford projector not repairable aboard ship."

"Very good, Mr. Kernahan," says Flinty coolly. "Have your crews close up to the energy weapons, please."

At this point I step forward like a cretin, and start to say: "You mean——" and then stop.

"There's a Locust out there," says Flinty, like he was an Admiral of the Fleet addressing his captains. "And she'll be creating havoc in the Centriga system within seventy-two hours if we don't stop her. Therefore, we must close with her and put her out of action. I don't see anything out of the ordinary in the situation, Mr. Melville."

Which sort of put me in my place, because, of course, along with every other naval officer, I'd been putting all my faith in the Waxford. As Flinty had brought home to us, we were a patrol cruiser out to prevent Locusts from sneaking through the screen to the Solar System sphere of influence in the Galaxy. That was our job—and because our big stick had broken didn't mean that we packed it in, or that we consider ourselves heroes for going in with the small stuff.

As I've said, these Locust ships are generally biggish cruisers, with roughly ten or so 249 mm energy weapons. The old Whirly had exactly four 120 mm energy projectors. She also had a couple of torpedo tubes; but they were as much use in a hyperspace sphere as slingshot marbles. In free space, of course—still, we knew we had to go in, and old Flinty sort of stood there like an ancient tree, roots deep buried, offering protection and sustenance—oh, hell, I guess you know what I mean.

I.C.: Yes, Mr. Melville, I think we know how the crew

of *Whirlpool* regarded their captain. You moved in to attack the Locust with your four small weapons against her ten of over twice the size. I understand. Please go on.

W.: Old Flinty merged hyperspace spheres beautifully at 0015, and Rogers did a slick job of extinguishing their radar contact. Of course, the Locust messed up our radar, too, so we were both firing on free aiming from the turrets. I'd say the Locusts weren't at all worried about merging hyperspace spheres—in fact, it seemed to me that they were thankful to do so, as if they had an idea they could be kicked in the pants from hyperspace by the Waxford and felt——

Commde. Hornung: Harrumph. Pure supposition.

W.: ——that they'd stand a better chance with their conventional weapons. As, of course, they did. I remember looking into the h.s. screen which showed the two spheres meshed like the insides of two rubber balls squashed into each other, and the Locust like a snouted black shark lying in the further globe. It's difficult to put over in this quiet room; but I experienced a quite definite aura of fascinated revulsion. The alien ship was beautiful and evil, and I had to go in and destroy her—if I could. I think some of the crew must have been feeling like that, because old Flinty gives one of his laughs and says: "There's an atom-powered skillet for the first coconut you gunners knock off that kite," and we all laugh, and then Kerny gets the nod and passes it on, and then the lights dim and the ship trembles and great gobs of power are flung away at the alien.

I'm not going to talk about a light cruiser in action against superior forces—it isn't something I want to remember. I saw poor old Rogers stagger back from his equipment, burnt black. We'd already lost most of our tail section, and one of the 120 mm guns was out of action. The air was heating up. We had stripped off uniforms as you have to in a light cruiser; the heat from the guns pours straight into the control room, not like those fancy battleships. I was thinking that, perhaps, we couldn't take much more of this—and we

didn't seem to have hurt the Locust at all—when old Flinty says to me: "Tom," he says. "Tom, I want you to take over command here. I'm going to pay these Locusts a visit." Only he didn't say Locusts, exactly.

I received a slight wound on the forehead from falling against the chart table around that time and I have a hazy recollection of Flinty and a dozen or so men taking off aboard a life shell. I decided to continue firing until they'd reached the Locust, which I did, ordering cease fire at 0100 hours. We'd then been in action forty-three minutes and had fifty-nine casualties. We were receiving contact reports from Commander Flinders from time to time, then there was a ten-minutes silence, then the alien ceased firing at 0125 hours. At 0145 the Locust blew up.

I.C.: A glass of water—quick!

Court Doctor: A shot'll be better—here—all right, lieutenant. You'll do fine now.

W.: As I was in command of the old Whirly, I decided, with Flinty not there, d'you see, that I had to do something, and then—where was I, sir?

I.C.: You were about to bring your ship home, lieutenant.

W.: Oh, yes, that's right. Stupid of me to forget. The old Whirly was a kittenish little kite; she handled half safely with her tail section missing, and I was able to bring her into Centriga Nine Artsatbase.

Commudre. Hornung: I feel that recognition of Lieutenant Melville's devotion to duty, a decoration——"

W.: Not me, sir. Alleyn Flinders—Commander Flinders—he was the one. He was the inspiration of the whole ship. He whacked a superior enemy and enabled his own command to disengage safely. I don't know what happened aboard that Locust kite—I don't suppose anyone ever will—but whatever it was, no decoration could ever do justice to old Flinty.

I.C.: These questions will be gone into.

W.: He ought to be a Galactic hero.

Commde. Hornung: Be useful propaganda. Enhance our prestige with the alien allies, especially with the Centriga pact in the offing.

I.C.: These remarks are out of order, gentlemen, and—

The Naval Secretary: I should warn you, gentlemen, that a certain course will have to be taken. This had better be off the record.

Only the rustle as the last photo page was turned disturbed the silence. General Flinders sat in his study, eyes blind, hands limp on his knees holding the record of his son's death. He was still seeing the glory and horror of space, the teeming myriads of stars, and the grey, half-lit world of hyperspace and the twin encroaching globes, and the livid belches of fire from slender metal shells of air as those two alien spheres met.

His son had died a hero's death in space, fighting at the head of his men. He had acted in the finest traditions of the service. Plainly, he had acted above and beyond the call of duty. When the Waxford failed he could have held on to the alien and called up Centriga base for a battlecruiser, chancing the damage the Locust could do in the interim. But he hadn't. He'd done his duty, as he saw it, and he'd died.

"And they hushed it all up," said Flinders, bemused.

"Why should they do that?" asked Wolcott Redvers.

"This is genuine, Redvers?" Flinders demanded suddenly. "You didn't put together a clever forgery, linking in my mention of Melville's name? No, of course not, you're not that sort."

Redvers helped himself to another boiled candy. His curious eyes held a twinkle. "You were so sure of the justice of your suspicions that you didn't stop to wonder why I should agree to handle the case on such slender evidence."

"No. Why did you?"

"The reason is, in its way, an example of the simplicity of

my mind. You'd said that both your son and Melville had referred to their ship as a 'kittenish little kite.' That, I thought, meant they had known each other. I am chagrined to find, on reading those papers, that navy men habitually refer to light craft as kites."

"You didn't know that?" Flinders might, at any other time, have laughed.

The door chimes sounded and he videoed in the caller. "Oh, hullo, Chris. Come on in."

When Christine Finlay entered Flinders rose and handed her the batch of papers. Whilst she read he paced hungrily and Redvers sucked a candy. At last Chris looked up, her hair a golden tumble around her flushed face. Her eyes sparkled dangerously.

"This is outrageous! Alleyn does a mad, stupid, typically gallant thing like that, and the authorities try to hide it." She clenched the papers tightly. "They told you a pack of lies, John, about Alleyn! They said he'd destroyed the Locust with his Waxford and had died afterwards and been buried in space. The lying devils!"

"Precisely, Miss Finlay," said Redvers. "The question now is, why?"

"Well, I'm not standing for this sort of thing." General Flinders thrust an angry hand at the papers. "The whole thing is absolutely preposterous! I can't imagine anyone having it in for Alleyn to this extent. It's unthinkable. There must have been a mistake somewhere. This report must have been mislaid; anything could happen in that rabbit warren in the Naval Building."

Redvers said: "You think it an accident?"

"Well, that's the charitable view."

"After Carlisle sat on this court, and after what he told you? After this was 'lost' in his safe?"

"I'll start tonight to see Carlisle. He'll have an explanation. He must have!"

"How do you propose to explain how you saw those papers?"

Flinders halted, hand outstretched. He brought that hand down and slapped his thigh. "Tell him! I'll tell him I talked with Melville before he left. And, Redvers, send a signal to Von Bernhardt; ask him to check that burial story." Flinders puffed three angry spurts of smoke and threw his cigar away. "I'll have Mister Eugene Carlisle squirming on a House Enquiry if he hasn't a spacetight story!"

Chris said: "Do you know this Commodore Hornung, John?"

"No, not personally," Flinders said briskly. "I'll talk to old Crusty Leckie; he's an admiral of some sort or other now. He'll know Hornung. And he only needs to catch half this story to be gunning for Carlisle, too. The Navy has a pretty fair idea of esprit de corps, even if they don't have the *elan* of the Army."

Redvers rose, drawing his cloak around him. He held out a hand. "Thank you, general. I'll be off now——"

"Hold it, Redvers! I'm still retaining you. You may have other work to do yet. You can stay here at Chartlands."

He gripped Redvers by the arm. "If I'm bucking the government, then I'll need your help. Don't forget, on the face of it, this affair is no mistake. Something is wrong. And I want recognition for my boy!"

The Solar Federation's Naval Secretary beamed upon the world and found it good. Repeating himself, he said into the telephone: "Thank you, Sir Buford, thank you." He smiled again and shut off the connection.

As Minister for Naval Affairs, Sir Buford Frohmann was the great god, the originator of all bounty. Eugene Carlisle was moderately ambitious. Naval Secretary was a responsible position, where there was a great deal to do and little kudos for the doing of it. But, having passed through that

stage, there were many openings in the higher echelons for a reliable man. Eugene Carlisle sat back and dreamed praiseworthy dreams of his future appointments.

The video roused him. The dark and pretty girl who was so conscious of her naval uniform told him: "General Flinders to see you, sir. Says it's urgent and won't wait."

Carlisle sat up. Now what did the old buffer want?

"Very well," he said incisively. "Tell General Flinders I can spare him ten minutes only and send him up."

He cut the connection and stood up to prowl his synthipersian carpet. This visit could only have a bearing on the Commander Flinders affair, which he had hoped was buried. Busily, his mind went over the pieces of the gigantic lie, clicking them into place. He nodded his head and sat down as his door chimes sounded. Everything was spacetight for sure.

"Come in." He rose, hand outstretched. "Ah, general, this is a pleasure. Cigar?"

"No thanks, Carlisle." Flinders did not sit down. He jabbed his walking stick at Carlisle's chest. "What's all this about my boy taking over a Locust ship and blowing it up when his Waxford failed, hey? What's all this nonsense about his death and burial later on, hey? What's the meaning of denying my boy his little bit of glory, whatever we may think of it, Carlisle, hey? Answer me that!"

So the lie's out!

By some superhuman trick, Carlisle kept that smile on his face. He even managed to sit down. He said: "I'm sorry, general. I don't know what you're talking about."

"You don't, hey? Suppose I tell you I know all about Alleyn's action? What I want to know is why you saw fit—no, by God—why you *see* fit to deny all this. Was there anything else I should know? Something to the boy's discredit?" He frowned, suddenly anxious. Then his stick came up again to jab at Carlisle.

"Of course that isn't it! You're playing at inter-departmental politics, using my boy as a chisel to prise an extra inch of padding on your swivel chair and another six inches of office carpet! Well, I won't have it, d'you hear! I won't have it!"

"Please sit down, general," Carlisle said, his voice a shade louder than normal. "And kindly stop waving your cane about as though you were leading the Light Brigade at Balaclava! Now, sir. I do not understand what you are talking about. Your references escape me. Perhaps you'd care to explain more fully." Carlisle clasped both hands beneath the desk and clamped his knees around them. Had that little dig about an ancient blunder been too strong? Would Flinders resent it, get onto his charger and enable Carlisle to slide around this mess? *If Sir Buford gets to hear . . .*

General Flinders breathed deeply. He set his stick down so that the ferrule went clean through the taxpayers' synthipersian carpet.

"Sir," he said icily, "I see there is nothing more to be said between us. I shall bid you good day. Oh, yes, the full story will be released to TV and the papers at once. Good-day to you, sir."

Flinders stalked out, leaving the door open. Carlisle, sagging back and letting his hands tremble as they liked, could hear the martial footsteps all the way to the elevator. Now the damage was done. Now he was in for that abrupt, inexplicable obscurity which so often overtook rising young administrators. Oh, damn it all to hell! Why did it have to be him to handle this sort of dirty business for the government? And poor old Flinders, ready to upset a world to grasp the glory that belonged to his son.

Any other type of man could have been talked to, cajoled or threatened out of it; but not Flinders, not with his record. Eugene Carlisle almost thought of enlisting.

Reluctantly, at last, he reached out and dialled a certain number. The line was double-scrambled, high-exec safe.

"Captain Schwensen. Little job for your department. General John Alleyn Flinders, Chartlands—yes, that's the guy. Fast, before he hits the Press. Pick him up, soft wraps, nothing unpleasant, please. Thank you, captain, a pleasure."

Christine Finlay's vivacious features showed preoccupation as she flung her scarlet two-place flier plumb down a vertical traffic lane a clear two thousand feet. She snapped the flier smartly into a landing groove and dropped it delicately onto the roof parking lot. She climbed out, with a single backward glance at the second seat. If only Alleyn . . . Nothing was to be gained by thinking like that, only more pain. The express elevator took her into the vitals of the mammoth building and she walked under the arch with the dignified lavender neon sign:

ANGEL BOWL

She paid her nine-fifty at the cash desk, took the cubicle key and entered the heated booth with its winged angel murals. She felt dreamy, in a semi-waking state, induced not entirely by soft and languorous music seeping from speaker grilles set high in the ceiling. She undressed quickly and strapped the antigrav belt into the small of her back. Then, with the little anticipatory shiver she always felt at the beginning of a free flying session, she dived out the far door of the cubicle into the rose-clouded atmosphere of the angel bowl.

Tingling chords of music and haunting fragrances met her. There were few people flying this time of morning. A laughing, naked couple were sitting on a synthicloud, trying to push each other off, gradually sinking to the blue and purple depths of the mistily scented rotunda. Higher up, a group of children flew, shrieking like leaves before a gale. Chris couldn't quite see them as cherubs. A portly gentleman went past, waving his arms, obviously in difficulties with his antigrav. Surprising herself, Chris laughed.

"I agree, Miss Finlay, a most amusing spectacle."

Wolcott Redvers' even voice came from within a cloud. The ambrosial synthiccloud billowed and parted, and Redvers soared through to take Chris's hand and guide her towards the opalescent roof. Chris was casually aware of the hard, ridged muscle on Redvers' body; the man was in fighting condition.

"You wasted no time getting here," Redvers commented.

"As soon as I received your message."

Ensconced in a spacious region of translucent light high in the bowl, Chris turned eagerly to Redvers.

"You've discovered where he is?"

"Yes, Miss Finlay." Redvers produced a barley sugar from the pocket of his antigrav. "Ministry of Public Relations arrested him less than an hour after he left Carlisle's office. That's three days ago. I had to exert pressure to get onto it at all. This is the tightest case——"

"Where is he? Is he all right?"

"They've not harmed him. Well, they couldn't, when you come to think about it. As I see it, they'll psyche him to forget all about it and turn him loose. What they're after is his source of information."

"You."

"Yeah. Me. I'm sort of wedged between two millstones. I can't say it's exactly a happy feeling." Redvers chewed his barley sugar.

"Any luck with Commodore Hornung?"

"He's on an inspection of the Quadriga Sector. I don't expect him back until next week. Had a signal from Bernhardt—he's at Proxima, by the way—absolutely confirms the burial story."

"They got to him, then."

"Evidently. Have you anything to suggest for our next move?"

"Plenty. I'll go and see Carlisle, tell him that if I don't get custody of John and a safe permit to leave, the whole story

will be blown to every news outlet in our section of the Galaxy. You'll handle that end of it."

"No. I think I'll stroll along with you. We can leave the information to be passed on. I have contacts for that. Yes, I think I will come with you. I rather want a chat with Eugene Carlisle myself." Redvers' eyelids suddenly rose to their full extent. "I don't want to think he's hurt the old boy. If he has . . ."

Chris, looking into those singularly slatey eyes, shivered uncomfortably in the heat of the Angel Bowl.

The dark girl who wore her uniform so well, said: "I'm sorry, Mr. Carlisle is not in. His assistant is handling affairs and Mr. Carlisle cannot be reached."

"Thank you," Christine said automatically.

"You're welcome."

Climbing into Redvers' grey runabout, Chris said, bitterly: "Foxy, that Carlisle."

"I think I know where we can find him." Redvers tooled the flier into the eastbound lane and rapidly rose to five hundred feet. He set up a flight course on the controls.

"Where?"

"If my calculations are correct, he'll be with General Flinders on a very quiet government estate."

"That's all to the good then. We can finish this affair at once."

"That was my idea. But it may not be as easy as all that." Redvers increased speed; they were leaving the city to the encroaching purple of dusk. "This affair has moved out of the personal, private individual field. It affects the government directly now. I don't think I'm exaggerating when I say that any news break could bring the government down. The Opposition would love this."

"I don't quite see," Chris said, puzzled.

"Tie in the Centrigan Treaty, and Earth's position as top

dog among the alien allies. Add the intensified Locust activity. You get a probability picture build up that is extremely unhealthy for the administration; it would be the side-band effects that would clobber the government."

"Instead of a Galactic hero, Alleyn would be a Galactic martyr?"

"With the inevitable authority-upsetting powers martyrs generate."

Chris chewed that over in her mind as the flier rushed on, scudding over green-chequered countryside. She caught the ghostly snow glimmer as mountains rose up from the world ahead. They were alone in the emptiness of the sky, all sign of civilization left beyond the horizon, with only the endless chain of mountains growing before them.

Redvers leaned forward in his seat with a sudden grunt. His eyes flickered over the control dials.

"It's a good thing we left our ace in the hole back there in the city. They've hooked us on a tractor and from now on we go where they want us."

"You expected this?" Chris was not alarmed. She had come to a realization that, with this unpredictable, pantherish Wolcott Redvers, she could never feel fear.

"Something like it. This is all restricted area. It's certain no one flies this way without good reason." He gave a low chuckle. "Ironically enough, it's army land. The old buffer must be feeling right at home."

"Yes," Chris said shortly. She nodded towards the mountains, their silver flushing in broadening bands of rose and purple and gold. "We must have missed a special announcement. Weather have obviously arranged something out of the ordinary for tonight."

"So it appears." Redvers stared for a long time at the nearing jumble of peaks and gullies. "By the time we've finished with Mister Carlisle, I don't think he'll be worrying about what Weather has arranged," he said at last, softly.

Under control of forces below, the grey runabout was whipped into a climbing turn, her hull screaming as gusts of wind sluiced off, was sucked like a mote of dust into the roaring throat of a giant vacuum cleaner.

She was plucked cleanly from the sky, flattened onto a ledge of rock and pinned there like a moth. Metal valves closed with a grinding rumble. A few loose boulders rolled away outside, warm air misted the cold cabin windows and Chris and Redvers exchanged baffled looks. They'd been brought somewhere by someone; now remained to be seen who had the best cards for the next play.

Impassive-faced marines came for them. They went meekly enough, through hewn corridors in the mountain side until they came to a paved courtyard and a waiting room, where a smooth and efficient captain searched them.

"Naughty," the captain said reprovingly, taking Redvers' little one-millimetre Morgan-Pownall. They were waved through into the inner sanctum. In the centre of the doorway, Wolcott Redvers bent down, pulled his trouser leg up, detached a six-inch flame-knife from clips and tossed it casually at the captain.

"Here, cap," he said. "You forgot this."

The captain's sudden convulsion as he tried to stop his muscles from reaching his hand for his gun amused Redvers. With a gusty laugh he flung his cloak in a dramatic swirl and went, with Chris by his side, into the taut, waiting silence of the inner room.

Eugene Carlisle was there. Under a picture window a blunt-featured captain sprawled in a formfit, cleaning a handgun. General Flinders rose from a straightbacked bentwood chair to greet Chris. His clothes were rumpled, but clean, and although his eyes were tired, he had given himself his usual meticulous shave.

She searched his face carefully. "How are you, John?"

"Fine. Just fine. Good to see you—you, too, Redvers. But what do you expect to do now you're here?"

"Plenty——" began Chris. Her voice was drowned by the bull roar from the gun-cleaning captain.

"That's enough of the play-acting! You are all under arrest! You will behave accordingly! Do not speak until spoken to!"

Analytically, there was the overpitched military tone of hysteria in his voice. As though each sentence stood by itself, shouted into an echoless cavern. Men without a philosophy shouted like that. He was the type of military Flinders deplored, at the same time as he recognised its necessity.

"Thank you, Captain Schwenson," Eugene Carlisle said mildly. Schwenson repelled him. He tried to think of the military policeman merely as a tool, an object to be used in line of duty. "Miss Finlay, and—ah, Mister Wolcott Redvers?—I should like to know why you have broken the law and come to this place."

"You dragged us here!" Chris said hotly.

"You know the reason, of course," Redvers stated. "I want General Flinders released, unharmed and with no strings. As of now."

Eugene Carlisle did not laugh. Schwenson might guffaw with his thick, slobbering lips; Carlisle had heard of this man Redvers. He was dangerous. And, with Sir Buford due to report to the P.M., he could envisage a succession of questions that would rock the House. They'd all have to be psyched—that conception sickened him—he felt a personal guilt, as though he were unclean. This thing had repercussions that just wouldn't stop. Damn the Flinders case, anyway!

He said, levelly: "There has been a serious leakage of classified information. I regret that it is necessary for us to take steps to eradicate the damage done."

"Psycho us, you mean?" Flinders lifted his head.

Redvers looked round, found a chair and sat down.

"I'm sorry, Carlisle. That's no good." He took out a barley sugar. "Full story on its way to the TV networks and the Press if we don't report back personally to my contact to prevent it." He flipped the sweet into his mouth, chewed appreciatively.

Schwenson guffawed again. Carlisle smiled thinly, a flogging thought lashing his pride with steel whips of contempt. Old Flinders, with his desire for recognition for his son—the bugles calling and the flutter of standards in the battle dawn—shamed him deeply.

"You are naive, Mister Redvers." Carlisle wouldn't meet the detective's slaty eyes. "If we psyche you, you will forget all about this. You will be able to return to your contact quite normally. We have expert psychomanipulators."

Schwenson chuckled, coughed and hiccuped. Carlisle sat, thin nutcracker face set in a mould of dedicated service, hating his guts.

Redvers said: "I wish you'd keep that pet gorilla of yours quiet, Carlisle. And as for your theory, ridiculous. If we forget all about this, how can we tell my contact to destroy the papers?"

Carlisle waved irritably at Schwenson. The big man rumbled and subsided. "I don't follow your line?"

"My contact is a psychiatrist, too. Any post-hypnotic suggestion was thought of. He'll break your boys' work before burning the evidence."

"Deadlock?"

"Precisely." Redvers smiled then, and contented himself with: "Rather, game to us."

"In that case," Schwenson said meaningly, "it will be necessary to persuade you by other means."

Chris went pale and Flinders' back cracked a trifle stiffer. Redvers' eyelids drooped over his strange eyes.

Carlisle could see all that, could see their reaction to

Schwenson's clumsy threat. There must be a way round this. He felt a psychic pressure from the policeman, herding, driving him, thrusting him into a corner and preventing him from thinking. *Torture was out, that was for sure.*

And yet, was it?

What was the fate of these three humans set against the destiny of the Solar Federation? Three against billions? It was an old law, harsh but just, and one which would be mercilessly enforced by blind authority. The welfare of the most came first, and the minority must go to the wall. The government would see to it. They would do the dirty work.

Sure—'they' would handle it as 'they' always did.

The trouble was that Eugene Carlisle was the government servant on the spot, he was the ultimate person who must do the dirty work. He was the 'they.'

It didn't occur to him to give Schwenson his orders and then to leave the room.

Carlisle stood up, clasped his hands behind his back, and began his restless pacing over the carpet. There had to be a way. He was a man quite efficiently chained down by his job. He couldn't even be sure whether his method of thinking had moulded his position, or whether holding office had affected his thinking. Here he was, with thousands of minions ready to jump at his lightest word, and able to send mighty fleets of battleships driving over the light years by a mere snap of the fingers—yet, if you wanted a crisp definition of a slave, you couldn't do better than pick the Naval Secretary of the Solar Federation.

General Flinders said gruffly: "Listen, Mr. Carlisle. My boy went to war in the Space Navy, laughing, knowing it wasn't all glory, accepting the dirt and blood and terror. He believed Earth was worth fighting for. He wanted to help stop the Locust ships breaking through. He stopped one, and proved himself a hero. Oh, I'm not concerned over the injustice of the lie you told me. I know Alleyn won't benefit

from the judgments we pass on him now. I'm perturbed, seriously worried, over what this affair has shown me of the government that Alleyn went out and fought and died for. It strikes me that totalitarianism, something we thought dead for a thousand years, has risen again. Or, insidiously just as bad, bureaucracy has at last come home to roost. What is the government hiding, Carlisle? What are you all so frightened of?"

And, of course, seeing it like that, the answer blossomed, fully formed, in Carlisle's head. The answer lay in the field of the private individual so that politics had blinded him to it.

"General," Carlisle said. "In my office I tend to forget that I'm a working member of a democracy. Every voter has as much responsibility to the general welfare as I have; only I get saddled with a darn sight more of the worries."

Schwenson looked perplexed; but they all sensed the easing of tension in the room.

Carlisle was smiling like a boy out of school. "General Flinders," he said, settling back into his chair, "I want to tell you a story that contains a lot of high-level thinking. So high, in fact, that, for a while back there, it lost contact with reality. You know the coloured parts of it; the outline and the shape you've picked up, illicitly, I may add. But you don't know the reason for it to exist." He swung round in the chair to stare out the window. "We agreed, that day in my office, that Earth must have the allegiance of the alien allies. And it was tacitly understood between us that the Waxford projector, as our big stick, was the factor that kept them in line and loyal. They all know we have the Waxford, that we can destroy a ship from hyperspace. Not only do they remain loyal because of that, they rely on us to protect them from the Locusts."

Flinders gripped his stick. "I'd like to say that one day

we hope our alien allies will be allies because of friendship and not fear."

"That day will soon come," Carlisle nodded confidently. "Now, Commander Flinders meets a Locust and is forced to destroy her by conventional methods."

Redvers said, on a rising note: "You're not going to tell me that the Waxford projector is a sham? That it doesn't shoot through hyperspace and that all Locusts destroyed are smashed by conventional weapons?"

The silence in the room was as thick as a four-decker sandwich. The tension was shattered by a growling mumble from beyond the window as thunder catapulted against the mountainside.

"Damn Weather!" cried Carlisle jumpily. "All right, so I suppose they warned us. I haven't time to listen to every broadcast about the Weather arrangements." He swung back to stare at the prisoners. "No, Mr. Redvers, I'm happy to say that your theory, ingenious though it is, is not correct. Commander Flinders' Waxford had broken down. A unique event, I may say. He went in, boarded the enemy, and blew her up. A fine piece of initiative in the Space Navy tradition. But—we could not release that story to the public."

Christine put her fingers to her cheeks and said: "*You couldn't admit that the Waxford can fail!*"

Eugene Carlisle nodded gravely. "That is what the government dare not admit—to anybody."

Lightning chased a split-second of brilliance over their faces, then Flinders said: "Surely the story of Alleyn's courage would have impressed the alien allies more?"

"No, sir," Carlisle said. "They know courage. They have plenty of it themselves. Courage is a basic necessity of any space civilization." He spread his hands. "They would have applauded Commander Flinders' actions, and planned

how to break their promises because they'd have known that the Waxford could fail."

"That's interstellar politics in terms of the jungle," remarked Redvers.

"What else is the overall policy of politics, when you discount the cybernetic trappings?" Carlisle glanced at Redvers as though surprised. "Earth must never allow the aliens to learn that a Waxford can fail. Never!"

"It seems that we're all slaves to those old magic words—the *status quo*," Flinders said slowly.

Thunder crashed in the room.

Captain Schwenson thrust to his feet, his booted legs straddling his overturned formfit.

"This verges on treason!" He was still emoting in those single, jabbing sentences. "Government classified information is being disseminated to the public!" He was going on like that when Carlisle turned a wizened look on him.

"Captain Schwenson! Please be silent!" Carlisle realised, with relish, that he was using the military policeman's own weapons. "You seem to fail to understand that responsible members of the public are fully as reliable as the military."

Carlisle pivoted away from Schwenson, stared levelly at the prisoners.

"I have your word?"

Flinders looked at Chris. He looked at Redvers. Then, standing up and holding out his hand to Carlisle, he said: "I hardly think that is necessary. But, of course, you have. We accept your picture." He swallowed. "If Alleyn could die for Earth, then we cannot undermine Earth's strength for any reason. It would be betraying him. I'd have liked some recognition for the boy, but, still——"

To everyone in the room, the sounds of the bugles were quite distinct, the battle-flags over the general's shoulder tattered and blood-stained.

"I think something can be arranged," Eugene Carlisle said quietly.

"One day," said Flinders, "we'll be able to live as sumptuously emotionally as we now do physically. I keep thinking of the boy, fighting his way into that Locust——"

Redvers said, sharply: "Think I'll run along and wash out my contact's papers."

"I'd come with you, Wolcott," said Chris. "But I think I ought to stay with John."

"Yes, Chris. Do that." Redvers flared his cloak over his arm, the hem skimming insolently under Schwenson's nose. "I'll look you up as soon as I can."

Chris said: "I'd like that."

General Flinders, the hint of an awakening smile half hidden under his white moustache, put an arm around Chris's shoulders.

"I think," he said, "I think Alleyn would like that, too."



Combination Calamitous

by JULIAN CARY

JOE HAD THE BIGGEST INVENTION SINCE THE DISCOVERY OF THE WHEEL. ALL HE HAD TO DO WAS PUT IT TOGETHER AGAIN. SIMPLE? MAYBE—IF HE LIVED THAT LONG.

LEMMY WAS LATE AND THE SHERIFF WAS ON THE PHONE, SO, what with that and a bunch of hot-rodders who had just driven onto the lot, I had little time or patience for old man Jenkins.

"I want some wire," he said. "High grade, medium gauge, assorted colours." He looked a little embarrassed. "I can't afford to pay too much."

"Find it yourself and it'll come cheaper." I craned my neck and peered through the open door of the shack I used as an office. The hot-rodders were swarming over the scrapped cars and I wanted to keep an eye on them. I'd lost carburettors and pumps before. Jenkins shuffled his feet.

"You'll find a stack of wire down at the south end." I watched him move away, uncovered the mouthpiece of the phone and spoke into it. "Sheriff? Joe here. Sorry to have kept you waiting. What's the trouble?"

"No trouble," he said easily. "It's just the tax assessment. The records show that your junkyard has spread itself quite a bit during the past five years and you're due for reassessment."

"Now wait a minute! Just because I'm using some of that old waste ground doesn't mean that I'm liable to

pay more taxes. Or are you trying to work that old 'development' racket on me?"

He chuckled. "Take it easy, Joe. I'm just the messenger boy around here. If you want to appeal against the assessment, be at the hearing next week."

"I'll be there," I promised. "How's the family?"

"Fine."

"And the workshop? Did that grinder give any trouble?"

"Not a bit," he said cheerfully. "But I could use a larger motor, Joe. You got anything?"

"I'll have a look," I said, and hung up.

The hot-rodgers were worrying me and I was halfway towards them when Lemmy, the half-wit I employ, finally showed up for work. He isn't really a half-wit, but sometimes I think that I'm over-rating him when I call him that. I waved to him, pointed towards the bunch of kids, then went in search of old man Jenkins.

I found him among the heaps of assorted wire, and watched for a while as he looked for what he wanted.

"Find what you need?"

"Not quite." He tugged at a coil of heavy-duty, black-insulated wire. "This is about the grade and gauge, but I'd like it in various colours."

"Sorry." I looked over the heaps. "I don't get a lot of coloured stuff. Is it important?"

"It's for my invention."

Everyone in Englewood knew about old man Jenkins and his invention. Most of the parts for it had come from my junkyard, though, if the postmistress was to be believed, some had come from a big commercial house in New York. The only thing no one knew for sure was just what the invention was for.

"Connecting things up?"

"That's right."

"If you don't need a lot, and if it doesn't have to pass through a conduit, the colours won't matter," I said.

"You can always tag the wires, or touch them with paint. How much would you need?"

"Thirteen lengths about six feet long."

"I'll cut it for you," I offered. "How's the invention going?"

"Almost finished," he said proudly, then hesitated. "Can you charge this for me, Joe?"

"I'll charge it." The cost wasn't much and I was curious. Collecting my cutters from the shack, I tried to pump him while I snipped off the wire. I wasted my time.

"I'll let you see it when it's finished, Joe," he promised. "I'm having a little trouble at the moment, and Mrs. Murphy isn't too helpful. I'll let you know when I'm ready for a demonstration."

Lemmy came over just then to ask the price of a down-draught and I forgot old man Jenkins in the pressure of business.

Business kept me busy for the next few days, too. I collected a broken-down piano from McKillwood and about half a ton of scrap iron from the Purdeys. I found a decent motor for the sheriff and delivered it to him for free. Then Kennedy dropped in to complain about the hot-rodders and I had to soothe him down.

Kennedy is the patrol cop and gets hot under the collar when the kids race him along the main highway. I suggested souping up his motor cycle with a new head and a super-charger, and promised to look out for some cheap spare parts.

What with one thing and another, Jenkins and his invention slipped my mind, until one day Lemmy told me that he'd taken a message.

"It was Jenkins," he said. "He sounded all excited. Said for you to come up right away."

"Did he say what it was all about?"

"No. Just said that he had something to show you."

"All right," I said. "You can drop me off at his place on your way to the Fenton Farm. Fenton's got some junk for us; shift it and tell him that I'll see him about the price later." I stared hard at my assistant. Lemmy means well, but he's inclined to be forgetful. "The price I'm going to charge him for removing the stuff," I emphasized. "Not what he's hoping I'll pay for it. Understand?"

"Sure," said Lemmy, and winked. I pretended not to notice. Some people have said hard things about the way I run my junkyard, but those people don't understand the principle behind a business like mine. After all, you don't expect an undertaker to bury your relatives and then pay you for the privilege, do you? The same with junk. Me and undertakers have a lot in common.

Jenkins lived in the basement of the big, old house which Mrs. Murphy let out to boarders. He answered the door as soon as I touched the bell and led me downstairs as though he expected someone to jump on him.

"It's Mrs. Murphy," he explained as he closed his door behind us. "She's a very difficult person to get along with. She was most annoyed with me for moving the furniture and for blowing out a couple of fuses." He looked down at his feet. "In fact, she's given me notice to quit at the end of the week."

"That's tough," I said sympathetically. "Got anywhere else to go?"

"That's all taken care of," he said. "I shan't have to worry about anything soon."

"You can't do it!" Something about his confidence upset me. "You're not that old, and the best of life is still before you. Don't give up just because of an argument. Anyway, it's a crime."

"What is?" He looked puzzled, then smiled. "I see what you mean. No, Joe, you're wrong, I wasn't intending suicide. I meant something quite different." He led the way

into his second room. "I meant this." He pointed towards his invention.

It was the oddest contraption I have ever seen. The central part was something which looked like the upended frame of a bedstead bolted to a stand. Beside it humped a mass of electrical gear connected to the frame by a mass of wires. They sprang from something which looked like an outsized distributor head, and were attached to the frame in the same way. I recognized the wires as those from my junkyard.

"I still owe you for that wire," said Jenkins.

"Forget it." I was too interested in the invention to worry about the trifling cost of the wire. "It worked, then?"

"Yes. I haven't tagged it, but there's no need now." He touched the invention as if he were caressing a baby. "The work of a lifetime," he said proudly. "And now it's finished."

"What does it do?" I asked the prime question.

Jenkins smiled. "I don't know how to explain it to you, Joe. If I said that it was a door between dimensions, would you know what I was talking about?"

"I've been to school," I said stiffly. "I can read, too."

"Sorry." Jenkins paused. "I wouldn't have asked you to call, but I promised and you've been good to me about the wire and other things." He paused again. "You see, Joe, all matter is composed of atoms. Electrons, positrons, protons and other particles all swimming about in emptiness. There is more emptiness than there are particles to fill it, much more. An atom is like a miniature solar system with lots of space between the planets. Understand?"

"Sure." I'd read all about this in the Sunday Supplements and he hadn't beaten me yet.

"Well," he continued, "a long time ago I had the notion that there could be other worlds, just like this one, but vibrating on a different frequency to our own. That, in effect, the apparent emptiness of the atom wasn't all emptiness at all, but held a different kind of matter. So I

decided to build something which would permit objects to move from one dimension to the other."

"Interesting. Did you?"

"Yes." He touched the invention again. "I did. It took a long time and a lot of money, but now it's finished. I've tested it, and it works."

I looked at the thing again. To me it seemed the craziest collection of junk I had ever seen. I recognized most of the items though some of them seemed as if made especially to order. The mesh across the frame for one, it didn't look like ordinary wire at all; more like spun glass.

"Quartz," Jenkins said. "It took me five years to discover how to obtain long, polarized crystals which would stand up to the vibration."

"Quartz?" I didn't call him a liar, but, as far as I knew, quartz just couldn't be worked like that. I looked closer at the mesh.

"That sets up the vibrational zone," explained Jenkins. "When the machine is operating the mesh exists partially in both dimensions at the same time, and so it's possible to pass through from one to the other."

"Does it?" I still wasn't convinced. "How about a demonstration?"

"Well . . ." He hesitated. "I've had trouble with Mrs. Murphy, and I wouldn't like more. The machine uses rather a lot of current and the fuses aren't heavy enough."

"Just for a minute," I urged. "They'll last that long, won't they?"

"Perhaps." He was dying to show me how it worked, and I knew it. "Current demands vary with the passage of an object through the field. If we just look maybe the fuses will stand it."

He threw a couple of switches and we waited. The jumble of electrical gear hummed as it fed current to the mesh; the mesh glowed for a moment then became fuzzy; the fuzziness cleared and a scene winked into life.

At first I didn't believe it. I walked to one side of the machine and stared at the wall directly behind the frame. It was a normal wall and I should have seen it from the front. Instead, I was looking at something right out of this world.

There were trees and a rolling plain, with the hint of a city on the horizon. A couple of objects floated across the sky, flying machines I think they were, but I forgot them as I saw the people.

There were eight of them, three men, five women. They sat on the grass, apparently in the middle of a picnic. The men were handsome, the women were simply beautiful. I stared at them, then at Jenkins.

"Can they see us?"

"Only if they look directly at the portal."

"And we can get to them?"

"Certainly."

That was good enough for me, but something, caution perhaps, made me doubt even yet. I looked around, saw a wastepaper basket, picked it up and heaved it towards the mesh. It was a heavy basket and it sailed straight and true. I watched it, firm in the resolve that if it passed unharmed I was going to follow it.

Then the fuses let go with a bang, the scene winked out and Mrs. Murphy came yelling down the stairs.

"It was the wastepaper basket," said Jenkins. "I told you that more current is needed in ratio to the mass of the object passing through the portal." He looked worried. "Maybe you'd better not let her find you here."

I agreed with him. I hate quarrels, and there was something in the tone of her voice which warned me that Jenkins was in for a good one. I took one last look at the machine, tried to find the wastepaper basket, couldn't find it, then let Jenkins push me out.

Trouble was waiting for me when I returned to the yard.

Fenton seemed to think that I was robbing him, and by the time I'd explained about the low price of scrap and the high cost of collection it was getting late.

I was busy the next day, too, and the day after was the time set for hearing appeals against the new tax assessment. I was giving final instructions to Lemmy when Mrs. Murphy came bustling into the yard. She wasted no time.

"I want you to clear the rubbish from that no-good's rooms," she snapped. I stared at her.

"Jenkins?"

"Who else?"

"But I thought that he was staying until the end of the week?"

"Not now he isn't," she said grimly. "I've a good mind to put the sheriff onto him. You know what that man did? He tampered with the fuse-box and burned out every wire in the house. It's a mercy he didn't set the house on fire. How much will you give me for his junk?"

"Now, wait a minute." I offered her a chair while I did some quick thinking. Obviously, Jenkins had fixed jumpers to the fuse-box for some reason, and the overload had done the damage. I could guess what had caused the overload.

"You just can't sell his property like that," I said. "What does he say about it?"

"I don't know, or care," she said. "He's gone."

"Gone?" My guess became a certainty. "Gone where?"

"How do I know? He was home last night when I went to visit my sister. He'd wrecked the place by the time I returned." She tightened her thin lips. "If he wants to take me to law, then I'm agreeable. He'll be sorry, I can tell you that. But I want his rooms cleared, and I want it done now. What do you reckon the stuff is worth?"

"That's hard to say," I said slowly. "How about if I move it down here and store it for a while? If he comes back, then he can pay what he owes you and reclaim it. If not, then I'll

sell it on a percentage basis. That," I urged, "will protect you against the law. And the stuff will fetch more if sold that way."

She thought about it for a moment, then nodded. "All right. But you must shift it at once, mind. If you won't do it, then I'll ask someone else."

"I'll do it," I said quickly, then paused. The tax hearing was due and, unless I argued it, the assessors would take me for all they could think of. On the other hand I wanted Jenkins' invention. I looked at Lemmy.

"Go up to the house with Mrs. Murphy," I told him. "Collect the machine you'll find in the basement and bring it down here."

He nodded. "I get it. Shall I start breaking it up?"

"No!" I swallowed and lowered my voice. "Don't break it up. Be very careful with it. Just bring it down here. Understand?"

"Sure." He jerked his head towards Mrs. Murphy and led the way towards the truck. "Let's go."

My mind wasn't on what I was doing that morning, and the tax assessors had an easy time. I argued, of course, and managed to make them see a little reason, but I still suffered a ten per cent. increase. I cut short the sheriff's condolences and hurried back to the yard.

I knew what had happened to old man Jenkins. He had loaded the fuse-box to give himself the extra current needed for him to step into that other world. He wouldn't be arguing about what happened to his invention and, after I'd paid her a little, neither would Mrs. Murphy. The invention would be mine, all mine, and I rubbed my hands as I entered the yard.

Lemmy had done the job. The frame, disconnected from the other gear, was standing by the office next to the humped electrical equipment. I grabbed the handful of wires, swung the frame into a convenient position, then stared at the

thirteen connections facing me. I looked at the wires. I looked at the connections. I called to Lemmy.

"Yes, boss?" He grinned at me. "I collected it nice and gentle, just like you told me."

"So you did," I said. "Now tell me, which of these wires goes where?"

"Uh?"

"You lame-brain!" I stormed. "You took it apart. Why?"

"I couldn't carry it out in one piece, that's why." He stepped backwards as he looked at me. "I didn't do nothing wrong, boss. I only undid those wires so as to carry it out."

"Why didn't you tag them? Why didn't you mark them in some way? How do I connect this thing up again?"

"I don't know, boss." He stepped even further away from me. "I just didn't think about it. Don't you know?"

I didn't.

So there it is. I've got one of the most remarkable inventions since the discovery of the wheel. The door to another world, a thing which could make me the richest man of all time. All I have to do is to connect up thirteen wires in the proper sequence.

Simple, isn't it?

You're wrong, it isn't. There are more than 6,000,000,000 possible combinations for those thirteen wires, and only one of them is the correct sequence. Working full-time, I reckon I could try them all in about a couple of hundred years. But I have to sleep, and I like to eat, and I have a living to earn. At the most optimistic figuring I can't do it in less than a thousand years.

And I'm not going to live that long.

But one thing keeps me trying. I may not have to try them all. I could hit the right combination at any time. That's why I want no outside aid. When I succeed, I want no arguments as to ownership of the invention. But I wish that Jenkins hadn't used thirteen wires.

I'm superstitious.

The Evolution of Man

by KENNETH JOHNS

Part 4—THE CURTAIN RISES

FROM THE FOSSILIZED RECORDS PRESERVED FOR US FROM the hundreds of millions of years of the vanished past, evolution appears to occur in spasms, whole groups being extinguished and replaced by rapidly evolving new types. Mutation and evolution are continuous processes, but only the more successful results of this constant experiment survive, and may then expand only when adverse factors keeping them under control are removed.

Evolution is an ecological balance, an interplay of forces leading to the survival of the fittest.

But the fittest of one era is not the fittest of another; always there is the constant forcing upwards to a more efficient type. Evolution is a tangled web of mutually interfering processes in which only the main threads, climate, competition and biological pressures, can be distinguished.

So far, no matter how successful one species is, there has always been a more generalized, less specialized form of life ready to take over from the fallen giant.

In the quiet Carboniferous Period, which began 275 million years ago, the climate gradually became warmer and life established itself firmly on the land. Forests flourished and the slow rise and fall of continents created vast seams of coal: the rise of the land making swamps, in which the lush vegetation thrived, whilst its fall inundated the swamps and laid down beds of silt to protect and metamorphose the organic debris. An inch of coal required the results of thirty years of plant growth, and yet there are coal seams forty feet

thick, whilst the total sedimentary deposits then laid down were often two miles thick.

This was one of the great long summers of the Earth. Warmth-loving coral grew in Arctic seas, giant club-mosses and scale trees grew 130 feet high, and cockroaches, spiders and dragonflies with a diaphanous wingspread of two and a half feet inhabited and made brilliant the tall coal forests. Amphibians with crocodile snouts, heavy armour and flat heads fed in the streams and marshes, whilst small, fast-moving reptiles evolved on the land. Reptiles learned that eggs with shells had a better survival value on land, and so divorced themselves from their aqueous origin and made internal fertilization a necessity.

Then, towards the end of this forty-five-million-year period, the Earth stirred as if awakening from sleep. The teeming summer paradise was doomed. The first grumbles of the earthquakes heralded the Permian crisis, a crisis which only the fittest of species would survive.

Down in the Antarctic a vast continent arose, growing mountain arms to stretch across the warm oceans towards what would one day be called South America and Australia, joining them into the greatest land mass of all time—Gondwanaland.

Cold ocean currents were deflected towards the Equator, chilling the whole of the southern hemisphere, until all the land was ice-bound beneath crawling glaciers. The ice marched north until it reached the Equator, its alien touch killing all the flora and fauna of that ancient hot-house world. Few survived.

Volcanoes opened anew and earthquakes tore the face of the Earth as giant mountain systems were elevated across Atlantis and the Urals of Asia. Clouds of volcanic dust veiled the sun and lava flowed over much of Australia. At the same time the seas fell, draining the swamps and turning the lands of the northern hemisphere into arid, murderous deserts. For twenty million years climate and geology were

inimical to life. It was a time of change. Unadaptable species died from the cold, perished for lack of water in the deserts, or simply starved to death when their food was destroyed.

Some remnants of tenacious life did survive, sheltering or adapting as best they could. Insects developed the pupa state to live through cold spells and a few reptiles emerged into the next long blaze of summer. But the insects, with their breathing system of diffusion through air tubes, were limited in size; they have only instinct, not intelligence, and so their great opportunity of becoming the dominant species was lost.

When the ponderous tread of the glaciers reversed and the Earth quietened, stirring only now and again with sudden activity, a few plant species had survived by developing tough leaves to combat the cold and aridity. They rapidly re-covered the lands, moving down into the Antarctic and up towards the North Pole.

Too, some early reptiles, such as the cotylsaurs, survived, and in the following Permian Period radiated in a tremendous burst of evolution to re-populate the Earth with four-legged reptiles.

From the cotylsaurs came the therapsid reptiles with legs set well underneath their bodies giving far more efficient locomotion than the ungainly waddle inherited from the amphibians. A small species of these, by developing into life with the ability to keep its internal temperature comfortably greater than the chill of the night, thus becoming the first of the mammals, directly fostered homo sapiens.

So, at the same time as the reptiles were beginning their majestic conquest of the Earth, mammals also came into being—and if the other forms of life had been blessed with precognition, they would have shivered for other reasons than cold. But the age of mammals was a long way in the future: first must come the age of reptiles, and the time of dying. The first mammals were rat-like, nocturnal creatures,

unable to compete directly with the reptiles, scavengers, carrion-eaters, glad to find a few unguarded eggs or snap up a carelessly buzzing insect. Any who developed into larger sizes were quickly disposed of by the victorious reptiles.

But mammals slowly evolved, eliminating the wastefulness of egg-laying by bringing their young alive into the world and continuing to nourish them after birth. Even then there were indications of the great future for mammals. Their enlarged skull capacity foretold intelligence through increasing brain size, the developing brain changing from the function of automatic stimulus-reaction mechanism to the cunning and power of true thought. But at this early date their greatest asset in competing, unarmoured, with the ferocious, specialized, cold-blooded saurian carnivores, was their new-found ability through warm blood to withstand the coldness of the nights.

Reptiles have a remarkably small temperature range of activity, only about 20 Fahrenheit degrees. When the temperature falls they become sluggish and easy prey for more active large animals. When it becomes too hot, they not only again become sluggish and apathetic; they are also infertile.

One hundred and ninety-five million years ago the Permian Period ended, and with it, the Palæozoic Era. The Mesozoic Era opened, a time more commonly known as the Age of Reptiles. During the next 125 million years the Earth and life went through a complete cycle as the mountains were worn down to rounded nubs and flattened plateaus to provide the background to the long era when the dinosaurs mastered all—and died when they could not adapt to the next crisis.

Through most of the Mesozoic Era's three periods, there were small rodent-like mammals on Earth, living on left-overs and existing in the trees, undergrowth and on the cooler, higher ground. Though they did not know it, they were biding their time.

The cold-blooded, four-legged reptiles evolved, and from them came the thecodonts, originators of the dinosaurs. They were small but fast, with specialized hind legs allowing them to stand upright and run, using their heavy tail as a support when at rest. Their forelimbs degenerated into useless, vestigial appendages. They were both herbivorous and carnivorous, and there is a moral to be learned here.

In the mild climate, probably under a heavy cloud covering, they thrived and expanded into thousands of species that conquered the air, seas and lands of Earth. All the continents were then joined together. By the middle of the Mesozoic, the Jurassic Period, giant dinosaurs were stalking the lands, many of them carnivorous.

Allosaurus was over thirty feet long, a carnivore with vicious claws and sabre teeth, the supreme killer amongst all the dinosaurs.

Later, some dinosaurs reverted to a four-legged gait—Brontosaurus, and the even larger Brachiosaurus and Diplodocus, with weights of forty tons and lengths of seventy and eighty-five feet. These were vegetarians and lived once again in the swamps where water could support their vast mountains of flesh. Fossil remains show that their bones in the upper parts of the body were lighter than those below, suggesting, not only that they used water for support, but that they needed some sort of weight to balance them and keep them upright.

Stegosaurus was a ten-ton, thirty-foot-long vegetarian swamp-dweller, also four-footed, with grotesque armoured body sprouting a miniature mountain range of dinner-plates along the spine. It had three brains, two of them located in its spine to control the reflexes of the tail and rear legs. Even so, it had less intelligence than a puppy, and was soon extinct. Multiple brains in one body was an experiment that failed; it was left to the mammals to demonstrate that one large brain is the most efficient mental equipment for survival value.

Sheer bulk and power made the carnivorous dinosaurs seemingly the most deadly of killers. However, a concentration on brute size was a specialization that killed many of the species—for their brains were so tiny, often a mere two and a half ounces in all that thirty-ton bulk, that the demands of their bodies and their environment could not be met by sufficient intelligence. Their brains were merely sensory responders, leading to blind, unreasoning attacks in a killing lust upon any moving creature in the carnivores' life. The vegetarians could react only with the same primeval stimulus response mechanism.

Towards the end of the Mesozoic Era, in the Cretaceous Period, dinosaurs reached their zenith and the ground trembled beneath their tread; armour plating reached absurd proportions when two feet wide bony plates were needed to survive against the onslaught of spiked tails and ripping teeth and claws. But there was no retreat from their evolutionary blind alley, even when the forty-five-foot long carrion eater, *Tyranosaurus rex*, devoured his way across the plains.

Not only on land were the great reptiles successful. Wave on wave of them were driven by their brethren's fangs to re-colonize the ancient seas. Their legs developed into fins and paddles, and their strength and size enabled them to become kings of the oceans. *Tylosaurus* could snap up a shark as a tasty after-dinner snack.

The air, too, was conquered by the reptiles. *Pterodactyls* evolved from the basic thecodonts, when each forelimb altered to form a single bony finger supporting a skin membrane. This was not true flight; the *Pterodactyls* could only glide and parachute from trees, and although they had a two-foot wingspan, were little larger than crows. They fed on insects and fish.

Later came the *Pteranodons*, with a wingspan of twenty-seven feet, the largest flying animals of all time. They

soared out over the sea, riding the thermals, and when on land could barely sit in an ungainly posture with their elbows supporting them. They were all cold-blooded and so incapable of the enormous power-output needed for true-flying. Their skins had no covering of fur or feathers, and this bareness was to lead directly to their extinction in times of stress to come.

And all this time the mammals survived, their brains growing more complex as they adapted to the cunning requirements of living in the forests and uplands on the fringes of the saurian empires. Progressing from the egg-laying mammals to the marsupials—the pouched mammals, so well preserved in Australia when that sub-continent was cut off from the destruction following in the train of the new animals, and in the opossum of America—they developed their peculiar attributes of warm blood and after-birth care of the young.

Then the Earth convulsed and the Mesozoic Era came to an end. With it went myriads of forms of life. Death lay like a blight on the land. The dinosaurs vanished completely, leaving only their bones to tell the story of a 100-million-year domination of the planet. The dinosaurs were destroyed not by a single factor; they failed in many ways, some of them not yet fully understood. An old race, each particular species had become so highly specialized in its rut of living that the early, latent ability to adapt had been lost. Size and power were not enough to defeat the invisible enemies of cold, radiation, starvation and a fatally-lowered birth-rate.

The continents were rising out of the seas and plant life was altering; the vegetarian dinosaurs could not adapt to the new food—grass had appeared and their teeth were not suited to the silica content—and with the death of the herbivores, internecine strife and starvation was the unalterable lot of the proud carnivores. Tiny, fleet reptiles, aided by mammals, stole dinosaur eggs. Temperature changes added further complications, and large animals

have a prohibitively long reproduction cycle so that they produce few young.

Probably the clouds cleared and harsh ultraviolet light seared reptilian bodies too large to hide under boulders. The curtain fell on the Kingdom of the Giants, the sad, fascinating, pitiful and instructive Age of Reptiles.

Then, seventy-million years ago, the curtain rose again on the greatest of all the acts of the Earth. With the Cenozoic Era beginning with the Tertiary Period, the mammals inherited the Earth. Being unspecialized, they made the most of their chance, and at once began mutating and expanding at a fantastic rate, whilst the Earth still rolled and grumbled. As if irritated at the new-born species, the Earth has never fully settled down, and soon the Alps and Himalayas were growing. Volcanoes burst through the crust all around the Pacific and the climate gradually cooled.

Like the dinosaurs, the mammals filled all available ecological space, in the air, the lands and the seas. Some of them wandered up the same blind alley of sheer size; in the world were pigs ten and a half feet long, ground sloths twenty feet from nose to tail, nine-feet high camels. The largest of the land mammals evolved, *Baluchitherium*, in the Oligocene forty-five million years ago, measured twenty-five feet from front to rear and eighteen feet toe to spine. These overgrown mammals were even less successful than the giant reptiles.

Hoofed animals flourished, grazing on the grassy plains and growing in size; from the tiny dawn horse, *eohippus*, came present-day zebra and from the miniature *moerithium* came the giant mastodon and elephant.

Carnivores developed from tiny insect-eating mammals, combining speed, strength and intelligence. The greatest of them all, *Smilodon*, the sabre-tooth, ate his way through whole continents, exterminating species after species before he, too, became extinct.

'Mammals were forced by their own competition to turn to the seas, as porpoises and whales, and to the air as bats.

Springing from the very root of mammalian development came a new experiment in evolution—increased brain size and capacity. A larger brain does not necessarily mean increased intelligence, it may merely function in more efficient ways to do the job of the dinosaurs' tiny brains, sensory perception and reaction. This may have been the cause of the mammalian brain enlargement.

The final story of the emergence of Man is the story of the Primates, the group of animals which we, in our own estimation, head. This line of mammals hold special significance for us, for, through it, descends unbroken the chain of life that began with the first speck of organic matter and leads up now to the present ultimate of intelligent life upon this planet.

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HERO



He didn't know what he was coming home to. When he found out he wanted to get away again—fast.

by

H. L. GOLD

JOE LYONS SHOULD HAVE BEEN GLAD TO BE SO CLOSE TO home. The Earth turned ponderously on his right, and the Moon lay stolidly before him—and behind him was the red pinpoint of Mars.

It had been three years since he had seen that sight, but he had no nostalgic lump in his throat, picturing himself home at last with his mother and brother. Lyons had the important problem of approaching Earth at the correct angle, distance and speed.

His automatic distance-finder triangulated his position in space. The integrator figured his position in relation to Earth at his present speed, and the angle at which he would approach it.

He made the slight changes the figures called for, blasting his bow tubes once at full speed, then at quarter capacity, and correcting his course by an eighth stern port blast that brought the ship pointing a degree over to the left of the Moon. Earth was blowing up to an enormous, shining globe. At the right moment——

Nine times he circled the world, his speed gradually falling from miles a second to miles a minute; and then the air was screaming around the hull. He was over Africa. He turned the bow north, until he flew over the Pacific.

He overtook California, the Rockies, the middle west; and in the distance he could see the Atlantic seaboard. Only then did he close the radio circuit for instructions from the home port.

"Hello, Lyons!" an excited voice broke out. "Ronkonkoma calling Lyons. If you hear me, please answer——"

The sound shocked him into dumbness. After three years of hearing no Earthly voice . . .

Experimentally, he cleared his throat to test the quality of the sound it produced.

"Lyons speaking," he said uncertainly.

"Anything wrong, Lyons?" the voice rushed out in anxiety. "We spotted you four hours ago—been trying to get you ever since. Anything wrong?"

"N-nothing wrong," he said in a careful monotone, though he was not sure his voice would not crack.

"Fine!" the announcer cried. "It sure is great to hear you, Lyons!" Then, suddenly businesslike: "Cut your speed, Lyons. Pittsburgh just reported sighting you flashing overhead at a rate that'll shoot you right past us."

"Okay," Lyons said.

He held down the bow studs until he could feel the ship sinking slightly with the loss of momentum. He leaned forward and stared at the keel visi-plate. Low, broad buildings, none more than forty storeys tall; an unscientific hodgepodge of narrow and wide streets, less than half of them mechanized, in spite of the three years he had been away.

"Isn't that Philadelphia under me?" he asked.

"Yeah. You should be here in about ten minutes. Brake when you cross Long Island City."

"Are you all clear down there?" Lyons asked.

The announcer's next words mystified him. "Boy, *are* we! You're the only ship ooming in here today, Lyons. Everybody else is re-routed over to Ashokan."

"What's the idea?"

"Don't ask questions, pal. Just keep a'coming, fast as you can. You can't get here too fast to suit us. But be careful.

Ronkonkoma, set aside just for his small ship? Ashokan would be mobbed, swamped with all the ships that usually landed and took off in both ports. It was senseless. They

would jam themselves up with an unnecessary snarl of rocket traffic——

"Making repairs down there?" he asked puzzledly.

"Nope. The place was never in better shape. How does it feel to be back, pal?"

"Not bad," Lyons said abstractedly.

"That all?" the announcer shouted.

But Lyons was busy with his controls. The gigantic buildings, square-roofed for helicopter landings; web-bridged; levels of mechanized ways and traffic streets; the air lanes swarming.

Manhattan, and danger of collision. He nosed up, out of the air lanes, over the East River, free now of bridges, and across Queens. Steadily, he checked his rushing speed. The long oval of Lake Ronkonkoma lay directly ahead.

Lyons was not stolidly unemotional. He had a job of landing to do, and he had to do it efficiently. Any other Globe-Circler rocket pilot would have behaved the same way. The important thing was get your ship down safely—it represented an enormous investment.

Thinking of nothing but the job at hand, Lyons kicked up the stern, braked until the ship's bow fluttered over the hangars and angled down in a long dive, straight for the water.

Blackness, the tumbling, hissing, swooping blackness of water, drowned all his visi-plates, smashing along the hull with a deafening roar.

Suddenly the water glowed yellow. He headed directly for the lights. The ship faltered, sagged heavily, its last momentum swiftly dying. It sank unevenly to the bottom.

Something gripped it and dragged it across the bed of the lake and up, until it burst into the light and over the shore, between the passenger and freight platforms of the tremendous rocket station.

"Okay, Lyons," the announcer cried. "Come on out!"

But Lyons sat numbly in his oil pressure chair, scared stiff.

"I—I can't!" he stammered. "All those people——",

They were packed densely on both platforms. Nervously he began to understand why all rocket traffic had been re-routed from Ronkonkoma. He could not hear the noise of the crowd, though he could see mouths open widely, arms wave hysterically, noisemakers whirring.

"I—d—don't want t—to come out," he whispered.

Through the double hull he heard faint pounding.

"Come on, Lyons!" the announcer pleaded. "Get it over with. You can't stay in there all day."

So many people to face, Lyons thought frantically. Even a few would make him self-conscious. Alone so long in the silence, no one to speak to—he wasn't even sure he could talk sense any more. There had been long months of dreadful, absolute, vacuum silence, alone in a cramped ship with even the nearest planets remote points of light. And there had been no one to tell him whether his gabblings were coherent.

"I can't face them," he muttered, cowering in his seat.

"Stop that nonsense, Lyons!" the announcer rapped sternly. "If they have to, they'll cut their way in. You might as well open the door."

Lyons stood up shakily, trying desperately not to look at the visi-plates, so frighteningly crowded with people. Holding onto the high, thick back of the control seat, he moved to the door. His feet were ton weights, his knees sagged miserably under the unaccustomed drag of gravity.

The pounding on the hull was growing louder. If he didn't open the port, they would cut their way in and drag him out. Then he'd get a bawling out from headquarters for letting his ship be scuttled.

It wouldn't last long, he told himself anxiously. He could make some excuse and break away. Landsickness—fever—maybe he could get the authorities to rush him to a hospital, and quiet. He stumbled through the hold corridor he had walked along so many times in the past three years that he knew every weld, seam and rivet, every plate in the floor. He walked on past the stairwell that led down to the ground level

gang hole. Reluctant to leave the ship that had been his sole home and companion for three years, he clung to the wheel of the airlock. Conscious of the pounding so close to him now, he backed away from the inner airlock, staring at it. He could leave it at lock position. He could slink behind the fuel hoses and hide there if they cut their way in.

But he couldn't, of course. His mother, his brother, his friends—were they still alive? Somehow he had to get past that mob and find them. That, suddenly, became his most overwhelming apprehension.

He whirled the airlock wheel until it came to rest, shot the bolts out of their holes. Air rushed in to fill the partial vacuum that in nearly a year of space travel had been caused by the slow leakage through the great outside washer.

The noise was closer. If they would only give him a chance to get used to the sound of human voices and the press of crowds! Normally he was not afraid of people. But this was so sudden—the change from silence to deafening clamour.

His hands shook so that he could scarcely make them grip the outer airlock wheel. That one he turned very slowly, reluctantly. He clutched the lever that drew in the safety bolts, listening intently for sounds to come through the thick, insulated door. There was dead silence, almost as if he were still out in space. He could no longer hear the terrifying din, and that gave him courage.

He threw the lever. Abruptly, he leaped back. The outer lock crashed in, forced by the weight that had been pressing against it.

A mob! Rushing in to snatch at him!

He could not close the inner airlock. It was too late. Men and women were surrounding him, pawing at him, shouting at him. Men and women dressed in formal red skin-tight spun glass suits with flowing green capes of synthetic fur and narrow-brimmed or brimless toques.

"Commander Lyons!" a red-faced, portly man boomed, grabbing his limp hand. "I am Abner Connaught, elected

President of the World-State in your absence. In the name of the peoples of Earth, I welcome you."

"Commander Lyons?" the space aviator stammered. "Why, I'm just a regular rocket pilot."

He flushed when the crowd laughed. The word passed to those at the distant ends of the platforms; then the entire rocket station, packed with people, howled with laughter.

He hung back, ashamed, angry.

The men and women who ringed him were evidently politicians and officials, for when they urged him out of the airlock and onto the platform, the crowd respectfully surged away.

He found himself at a battery of microphones, facing another battery of television scanners, inside a circle of armed police. Beyond, the mob milled, trying to get him—yelling, waving arms.

President Connaught drew him before the microphones. Unwinking, the giant television eyes stared at him.

"Fellow citizens of the World-State," the President's voice boomed again, "three years ago we watched Commander Lyons flash away from Earth, out into space—an intrepid explorer flying through the uncharted wastes of nothingness toward Mars, there to find its commercial value.

"For three years we have watched and prayed for his safe return. Now, at last, he returns to us, modest as ever, unchanged by the acid test he has gone through. We are grateful for his safe return and——"

On and on and on, in the changeless formula of politicians since the world began. Lyons had to stand uneasily while the blank-eyed scanners stared at him and the mob behind glowered at the police guard; but at least they were silent now.

He shifted from one foot to the other. His hands hung down clumsily; he could find nothing to do with them. And, all the while, the blank, terrifying stares that he could not avoid.

Nervously, he turned his head. Outside of the ring of

officials, two faces leaped into sight—immobile, remote faces that smiled at him almost as if he were a stranger.

"Mom!" he cried. "Sid!"

Simultaneously, their faces grew pale and distressed. They pursed their lips behind their forefingers warningly, to hush him.

For President Connaught had wheeled about, gripped his shoulder, and was saying: "Now, commander, tell us what you found on Mars. Remember, my lad, the entire world is listening reverently for your first words."

Lyons gazed in frozen fascination at the microphones. His mind refused to think of two words that could possibly be connected. He stood trembling, unable to speak, as the crowd became restless. The President glanced at him.

"I—I can't talk to—to them," he stammered.

His nerve broke suddenly; he stumbled to his mother, threw his arms around her.

"—I can't talk to—to them," he stammered.

"Please, Joseph," she whispered, "for my sake."

He drew away from her. "Joseph?" he asked. "Not Joey any more?"

Gently, his brother Sid caught his arm and led him toward the microphones.

"I know how you feel," he said in a low, tense voice. "That's why a speech was written for you. Just read off that paper they gave you."

Lyons looked at the paper, glanced around pleadingly. Sid and his mother motioned him forward. The President smiled encouragingly and put him before the frightening array of broadcasting equipment.

He began to read. The words were meaningless to him, and he read in a flat, hurried, rattling voice, without pause or inflection, glad he did not have to think of what to say. It was all there on the paper, whatever it meant.

He scarcely realized he had finished until President Connaught patted him on the back and said:

"Thank you, commander. That was splendidly put. And now, fellow citizens, let us wait patiently until Commander Lyons is rested and his Martian films developed, when we shall hear more from him. I am sure our patience will be well rewarded."

A detachment of police surrounded Lyons and his family and made a way through the crowd to a long, sleek car outside the rocket station. Two men sat in the rear. Lyons stopped uncertainly when he saw them smiling at him. "It's all right, Joseph," his mother said soothingly. "They're Mr. Morrison and Mr. Bentley. You know them, don't you?"

The president and the treasurer of Globe-Circlers! "Hello," Lyons murmured respectfully. "It's nice of you to be here."

"Modest as ever," Morrison said, and laughed. "Eh, Bentley?"

The treasurer grinned. All at once, the car was in motion and swooped into the tunnel highway toward New York. Sid and his mother sat nervously facing young Lyons, their mouths tight in humourless, formal smiles.

"Is my old room ready for me, mom?" he asked, desperately trying to make conversation.

His mother looked embarrassed.

"I don't know how to say this, commander," Bentley said, at last. "I think you'll prefer having us be frank with you."

"Certainly," Lyons replied.

"Well, you must give up ideas of going back to your old life. No more small apartments or flying. You're a world hero, you know."

"Sure," Sid added. "You're on top of the heap, Joe."

"A world hero?" Lyons asked quizzically. "What's that?"

"It's an old word we re-discovered," Morrison volunteered.

"It seems that in our prosaic civilization, until now, there was not sufficient public interest in a single man to make him a hero. In your case, the situation got somewhat out of hand. The newscasters made so much of your flight that

the public elevated you to the position of hero. To capitalize on your fame, you must live up to it."

Lyons felt uncomfortable. "I don't understand——"

"Through you," Bentley said, "the world can advance centuries at a leap. Interplanetary travel, on schedule—the riches of the other planets——"

Lyons nodded. "But how do I do all that?"

"All the planets are open to our exploration," Morrison explained. "Globe-Circlers has built two interplanetary ships—yours and a newer, larger one—the first of what will eventually be a great fleet of space liners. Obviously, a single group of stockholders hasn't the money to build all that are needed. Therefore, we put up you, Commander Lyons, in whom the public has enormous confidence; the public puts up the money to build the ships; and we call the fleet the Lyons Line."

"It's the grandest opportunity in the world for you, Joseph," his mother put in.

Sid shook his arm excitedly. "You'll be president of the new company, Joe! And they're going to give me a big job, too!"

"And I'd like to help all I can," Lyons admitted. "Only I don't see how I fit in as president of the company. I'm just a pilot."

His mother said: "Don't worry about it, Joseph. Mr. Morrison and Mr. Bentley will tell you what you have to do and when to do it."

"It'll be an irresistible combination," Morrison declared, tapping Lyons' knee, "your reputation, our commercial experience and the money we shall allow the public to invest. Just leave everything to us, commander, and we'll be top men in this little old world!"

They rushed through the tunnel without encountering any traffic, which had been re-routed to the surface highways. When they came up into an upper city street level the driver swung the car uptown, then under a building that Lyons

recognized as the Grand American Hotel—Earth's largest and most expensive.

"Well, commander," Bentley said expansively, as they went toward the glittering elevator, "here's where you're going to live. In the Grand American Hotel!"

Lyons blinked. "It's nice, but I wouldn't feel right in a place like this. I wish you'd let me stay in my old room at home."

"No, Joseph," his mother protested, "Mr. Morrison and Mr. Bentley hired an entire floor of the hotel for you. Besides, I gave up our little flat. It was no place for us."

"I liked it," Lyons said wistfully.

He let himself be guided up to a lavish suite of rooms. In the huge foyer he hesitated, confused. A staff of servants—it seemed like hundreds to him—was lined up for his inspection. They all bowed low.

Embarrassed, Joe Lyons sidled around them into a lavishly furnished living room. He could see through the doors into other rooms, carpeted with gorgeous, thick-napped rugs, furnished extravagantly.

"I'd never get used to it," he mumbled. "It scares me."

"Nonsense, my boy," Morrison said. "In no time you'll be striding around as if you were born here. Anyhow, the public expects the president of the Lyons Line to live in a place that fits his position."

"I guess so." Lyons' space-tanned brow creased. "But it still doesn't seem right. You built a spaceship and I flew it. I've been handling G-C rockets for the last ten years and, according to the tests, I was the fittest pilot. That's all it was."

"But if the people want you to be president of the company, Joseph," his mother said, "that's all there is to it."

"Sure, if it means giving space travel a boost. That's my ambition."

"Quite right, commander," Bentley approved, putting a sheaf of papers and a pen in his hand. "Would you mind signing at the bottom, please?"

Obligingly, Lyons scrawled his signature.

"What does it say?" he asked.

"These are the Lyons Line incorporation documents. You have accepted the presidency of the company."

Morrison folded the papers, and put them in his pocket. He shook Lyons' hand. "We'll leave you now, my boy. Get some sleep. We'll see you tomorrow."

His mother kissed him, and left with his brother, Sid.

A butler entered. "Dinner is served, sir. If you wish to sleep, your bedroom is ready."

He was hungry and tired. He managed to eat, though a crew of servants kept slipping plates under his nose. He could hardly wait to sleep in a soft bed with cool white sheets.

In the bedroom he began zipping down the talon fastener of his trim blue jacket, then paused. His forearm had touched a bulge in the breast pocket. He had been so confused he had forgotten it, which he had never thought possible. From his pocket he drew out a statuette.

A photo-statue, made of developer plastic, in natural colour. Anyone would have recognized it as a product of a sculptor-camera; but the statue itself would have caused amazement.

"Lehli," he whispered to it.

The sadly smiling little face did not change. In his imagination he could see the red iron-oxide sand of Mars beneath her tiny sandaled feet, just as it had been when he had taken the picture. The shining black hair was only printed on smooth plastic, but he could imagine its silky wealth, could vision the lovely, delicate, sensitive features; the slim body in its flowing white toga.

"Cahm bahk sssoon, Joyeee," he heard the sweet, sibilant voice echo.

"Gosh, I wish I could, Lehli," he whispered. "But it looks like I won't be able to do it for a while. But, sooner or later, I'll be back with you, Lehli, darling, when I'm not needed around here."

He placed the statuette gently on the night table and undressed. On the return from Mars, he had thought expectantly of invigorating showers, for lack of gravity did not allow them on shipboard. But he was too exhausted to do anything but fall into bed. Funny, he thought unhappily, how Sid and his mother had changed; no warmth at all. Nothing like Lehli, who had been so generously affectionate.

A hand, shaking his shoulder, roused him out of his slumber. He opened his eyes and saw Sid bending over him. His mother smiled at him from the foot of the bed.

"My goodness!" she said. "You certainly must have been tired. You've been asleep almost twenty-four hours."

He yawned and stretched, threw the covers off and stood on the floor.

"Boy, I sure feel better. I bet I could've slept a week if you'd let me."

"Sorry, Joe," Sid apologized. "We had to wake you. There's going to be a big blow-out for you tonight—official reception and all that stuff, and you're supposed to make the first announcement of the new company."

"Well, gosh, Sid," Lyons complained. "I was sort of hoping I'd have a day to myself. I wanted to look up some of my old pilot buddies——"

"Some of them'll be at the reception," Sid broke in abruptly. "But, Joe, you've got to think of yourself last, the way we've learned to. You're the biggest public figure in the world to-day. Everything depends on you, and it all has to work out!"

"What do you mean?"

"Well, tonight's the official reception. You make the announcement and the public gets interested. To-morrow you inspect the spaceship that's going to take off in the afternoon. The public buys our stocks, see?"

"Spaceship?" Lyons asked. "For where?"

"Your recording instruments and films and all that

scientific stuff is being analyzed by our scientists. They'll make any changes in the equipment that'll be necessary."

"The ship's going to Mars?" Lyons asked eagerly.

"Yep, the first of the Lyons Line."

"Boy, if I could only be on her!" Lyons exclaimed.

It was impossible, of course. He had his duty to do first.

"What is this, Joseph?" his mother was demanding. She was holding the photo-statue. "Who is she?"

"Lehli, a Martian girl," he said. "I—I'm going to marry her."

"Marry her? With that horrible coppery skin? Oh, Joseph, the girls on Earth are much nicer!"

"That's protective colouration," he protested. "Cuts off actinic rays."

"But a Martian! Maybe she isn't even human!"

"Yes, she is. Her folks escaped from Earth before one of the ice ages."

Sid grinned knowingly. "One of those savages, eh, Joe?"

Lehli, descendant of the gentle, cultured Martian race, a savage? Lyons' face went white and his hands clenched.

"You'll give her up for my sake?" his mother pleaded.

"But, mom——"

They heard the elevator door slide open.

"That's Morrison and Bentley, mom," Sid said quickly. "Go out and talk to them. I'll help Joe get dressed." When she had left, he said to his brother: "Don't worry mom like that, Joe. You know you can't go back and marry that Martian girl. Your place is here, advancing interplanetary travel. Besides, you know how she worries about us—dad killed in a crack-up, either of us liable to do the same. Morrison is going to marry her if this deal goes through, and she likes him a lot. It'll be a great break for all of us."

"Yeah, I know," Lyons said doubtfully. "I'll do what I'm supposed to, but after that's finished there's no reason why I can't go back to Mars."

Sid didn't answer but his face was grimly abstracted.

Lyons allowed himself to be put into a formal red spun-glass suit, clasped the green cape around his throat and donned a brimless toque. In spite of his discomfort in civilian clothes, he was handsome and dashing.

The butler was standing outside the door with a tray in his hands. Lyons took the single glass it contained and drank the vitalizing breakfast cocktail. Then he followed Sid into the sitting room. Morrison, Bentley, his mother were there—and a beautiful girl. They shook hands with him.

"What a change in you, commander," Morrison said. "Nothing like a good sleep to put you on your feet." He led the girl forward. "This is Mona Trent—our most famous and glamorous studio star."

"How do you do, Miss Trent?" Lyons murmured.

"Not Miss Trent. Call her Mona, and please be very attentive to her," Bentley adjured. "Think of the publicity—pairing off the two most popular young people in the world today!"

Mona smiled charmingly and took his arm as they entered the elevator. But, descending to the main floor and walking through corridors to the vast ballroom, packed with people and audio-casting equipment, Lyons was wondering how interplanetary travel could be advanced by his being attentive to a beautiful audio actress.

People jumped to their feet when they entered. Lyons felt his nervousness coming back. Hands were shoved out at him to be shaken. He shook them obediently. A paper was put in his limp grip and he was brought before the battery of audio microphones and scanners. By staring at the paper and thinking of nothing else, he was able to read off his speech without too much trouble.

Then they ate; speeches were blasted at him; and Mona sat at his right, gazing adoringly at him and angrily demanding that he be more attentive, when no one could hear. Passively, he listened when she whispered meaningless nonsense at him, apparently just to make him look at her.

"Don't be so stupid," she breathed, while her eyes were melting at him. "Smile. Laugh. It's for the effect."

He tried to, but whispering idiotic gabble at her was something beyond him. He was straightforward, as were most rocket pilots. He could see the strategy in being courteous to investors who could advance rocketry; but he couldn't understand the need for acting as if he loved a popular audio star.

She finally demanded that he dance with her. He swept around the floor with her in his arms. Embarrassingly, everybody got off the dance floor as soon as he stepped on it.

He saw the crowd in confusion. In the compact rows of faces he saw—old buddies of his!

He halted abruptly and walked eagerly toward them, his hand out in greeting. They jumped up and took his hand, grinning a little uncomfortably.

"Gosh, it's great to see part of the old gang again," he enthused. "How about coming up to my place when this brawl's over?"

"Well, we'd sure like to, commander," Sam Martin, one of them said. "But, hell, roughneck pilots like us can't be seen with a hero like you."

"Quit your kidding, fellers," Lyons said, and laughed.

He introduced Mona. Curiously, their discomfort increased. He sat down and tried to draw them out in conversation. They spoke only when he addressed them, and then in the most deadeningly respectful tones. Gradually, he was growing more puzzled, defeated and lonely, when Mona led him back to the floor.

Why was everybody so cold and remote? Not only his old buddies, but even his mother and Sid. Despite his loyalty, he was forced to admit that. Mona Trent did not baffle him. She only regarded him as another leading man.

But everybody else—why weren't they as friendly as they used to be? Why didn't they give him the companionship he craved?

Lehli was not like that. Lehli was warm, generous, affectionate—and understanding . . .

The next day, standing inside the spaceship, waiting for the portable audiocasting equipment to be assembled so he could address the entire world as if he were the greatest expert on rocketry, he felt like the last fool in creation. All this—simply because he had been lucky enough not to have his own ship smashed either by a meteor or by an error in landing.

Mona Trent hung on his arm; Morrison and Bentley were close by; Sid and his mother, of course, could only look on at a distance at a launching exhibition.

"What do you think of her?" Morrison boasted. "First of the fleet!"

"She's a beauty," Lyons admitted.

"If we play our cards right, my boy," Morrison whispered in his ear, "we'll be billionaires! The public's already hollering to buy!"

"I wasn't thinking about making a lot of money," Lyons said. "All I want to do is help out all I can, and go back——"

"Hold it, commander," Bentley interrupted. "The audios are ready."

Joe Lyons began walking through the ship, praising it into the microphones. In this he was sincere; she was the finest, most modern, most completely equipped spaceship he had even thought possible.

He spoke simply and effectively. Then he took a prepared speech out of his pocket and began reading it. It was mostly a repetition of what he had already said two or three times—the profit possibilities of space travel, the commercial value of the other planets, civilization reaching upward.

His eyes were travelling slightly ahead of his voice when he saw a paragraph that shocked him speechless. It read:

I hesitate to bring my personal affairs into a momentous occasion like this; but I am sure you will all be

happy to hear of my engagement to the most beautiful girl in the Universe—Mona Trent! For three years we have been separated . . .

He glared furiously at Morrison and Bentley. They looked anxious as they gestured him to read on. Grimly his mouth tightened. He walked swiftly away from the audiocasters. Morrison had to jump in and take over.

Bentley and Mona tried to follow Lyons. He slammed a door on them and strode alone through the magnificent control cabin, the living quarters, the laboratory, the cargo hold. There, he paused and put his hand into an open crate.

Damn them all, he swore, let them use him all they wanted to, let them make billionaires of themselves—he didn't care, if rocketry could be helped only in that way. But they'd made a damn hero out of him, cut him off from his friends, turned Sid and his mother into schemers—and now were trying to force him into marrying a girl he didn't love!

Sid or his mother must have told Morrison and Bentley about Lehli, and to prevent——

He stalked back, stifflegged and ominous. Sam Martin, the same old buddy he had seen the night before, stepped forward and saluted.

"We leave in ten minutes, sir!"

Lyons was supposed to shake hands with the crew and wish them luck, and he did. But when the audiocasters left and Mona angrily followed them, Lyons stood stubbornly still.

"Come on, commander," Bentley urged. "They're going to take off."

Lyons folded his arms. Anxiously, they tried to hurry him. He shook them off savagely.

"What's wrong, my boy?" Morrison asked, surprised.

"I picked up a ray-gun in the hold——" Lyons began meaningly.

"Stop talking nonsense and come along," Bentley said. There was a gun in Lyons' hand.

"Out of here, you two," he snapped at Bentley and Morrison. "As for the rest of you, I'll blast my way to the controls if I have to!"

Bentley and Morrison did not resist when he jabbed his gun into their backs and forced them to the airlock.

"Walk out of here naturally," he grated, "or you'll have a sweet scandal on your hands. So long!"

Their faces were pale, but somehow they managed to walk out. The crowd burst into cheers—which were abruptly shut off. Lyons closed the outer airlock, whirled the wheel, shot the bolts; did the same with the inner port. He thrust his gun at the crew.

"Get to your stations," he ordered coldly. "I'm going along on this ride!" His chin set. "Go on—get!"

One moment more they hesitated, then grins crossed their faces.

"Sure," Sam Martin said. "What the hell're we to stop you? Nothing but a bunch of Globe-Circlers, not a hero among us."

Lyons searched their faces for irony that was not there.

"Cut it out, boys!" he begged. "You guys have known me for years. I'm still the same Joe Lyons! No hero, either!"

The ship started to move along the mechanized ways to the take-off gun.

"Don't wanna contradict, commander," Sam Martin said seriously, "but flying between Earth and Mars, alone, does leave a mark on a guy. Either he cracks or he comes out a hero. You're a hero—even if you don't wanna be one. We're all together now, though, depending on each other—and on you!"

In the same ship with four of his oldest friends!

Perhaps on Mars he'd be only a human being again—not a lonely hero.

Smiling, Lyons pressed his forearm against Lehli's statuette inside his jacket, and then he turned his head away. It wasn't right for men to see tears in a hero's eyes.

MELLY AND THE MARTIAN

by FRANK WINNARD

*MERVIN MEANT WELL. IT WASN'T HIS FAULT THAT
MARTIANS WEREN'T HUMAN*

WHEN MERVIN WON TEN THOUSAND CREDITS AND A free trip to Earth for writing the winning five words on "Why Martians Love Melly's Mush," all his friends thought that he was the luckiest guy on the planet. It was useless him telling them that he wasn't really interested in going to Earth, that he would rather stay and tend his farm, or that he hadn't meant it, anyway. As George said, if Mervin hadn't wanted to go, then why had he entered the competition in the first place? Which, as Mervin knew, was just plain jealousy, because George hadn't even won one of the five thousand gold-plated stylo sets for his own entry.

Still, even Mervin had to admit that his friends had something, when they said it was the chance of a lifetime. With the fare what it was, it was unlikely, not to say downright impossible, that he would ever get another opportunity to visit Earth. And deep down inside he did want to see Earth. Honest.

"They've got buildings a mile high," said George wistfully. "And shops full of candy bars and watches and cameras." He sighed with naked envy. "It must be heaven."

Neither George or Mervin knew just how high a mile was, but both had an acute appetite for sweet stuffs. Watches fascinated them for no other reason than that they loved to watch the hands move around the dial, and owning a camera was a sign of social prestige. This was a direct result of the tourists; they all arrived loaded with cameras and watches.

Mervin, like all Martians, had an inferiority complex a mile wide and two miles deep. Whenever he came into contact with the big, blustering Terrestrials he felt as if he wanted to curl up into a ball and roll right out of sight. Not that they were ever cruel to him; far from it; they tried to pet him and feed him candy. It was just that it was almost impossible for them to realize that the cuddlesome ball of fur which was a native Martian was both intelligent and sensitive.

Communication helped, of course, and as soon as the Martians learned to talk English in their shrill, high-pitched voices, the two races got on famously. Terrestrial women stopped wanting to wear Martian fur coats and, in return, the Martians adopted Terrestrial names so as to make things easier all round. The only real danger now facing the natives of the fourth planet was that of being adopted as pets. Not that they objected to being fed and cared for, but they found the gravity of Earth too high and the inane conversation of child-hungry women too nauseating, even for the endless comfort of a parasitical existence.

So it was with great relief that Mervin found his guide and mentor on the trip to Earth, not a woman, as he had feared, but a tall, thin, hard-bitten advertising man by the name of Mike. Mike had a chip on his shoulder and didn't trouble to hide the fact.

"A nursemaid!" He scowled at Mervin, who had curled himself up on the top bunk of the double cabin. "Me, the man who sold Africa the idea of untan lotion and who persuaded the British to stop drinking tea! Now I've got to wet-nurse a teddy bear. I ask you!"

"Ask me what?" Mervin, ever polite, responded to what he thought was a question. Mike snorted.

"Ask you nothing!" He fumed for a while in silence. "How was I to know that the winning entry had been submitted by a native? Mervin, that's a good old Terrestrial name. You should be ashamed of yourself."

"Yes, sir," squeaked Mervin unhappily. "I'm sorry, sir."

"Don't call me 'sir,'" snapped Mike. He softened as he stared at the Martian. "Though it might prove a good gimmick at that. At least the old girl seems to think so, and she should know."

"Which old girl, si . . . Mike?"

"Melly herself." Mike softened still more as he thought about her. "That woman is a sheer genius. Know how she started? It was fifteen years ago when she worked in a cheap restaurant. They made up a stew from the leavings and one day Melly got the idea of dehydrating the stuff and packaging it. I was around at the time and showed her the rest. We called it Melly's Mush, the pre-digested food for men, women, children, animals and extra-terrestrials. With some good advertising, selected medical reports, personal interviews and plenty of plugging it went over like a five alarm fire. Now Melly's rich while I'm still acting as office boy."

He glowered in silence and Mervin ventured a timid remark.

"You like her, Mike?"

"How did you guess?" Mike scowled even more. "She may not look like a video star, but there's something about her I can't resist."

"Her money?" Mervin was well versed in Terrestrial mores. Mike swore.

"Not her money, you damn fur-ball. Her cooking. That woman can cook like an angel!"

Mervin sighed as Mike, still swearing, slammed out of the cabin. It seemed that he still had an awful lot to learn.

The reception committee at the spaceport seemed to consist equally of people wanting to take photographs and people wanting to be photographed. Mervin found himself being held by a succession of actresses, would-be actresses, socialities and female friends of the management. They all acted in the same way, baring their teeth and simpering into the lenses of the cameras, and all seemed to be wearing

a minimum amount of clothing with a consequent display of a maximum amount of skin.

To Mervin, accustomed to seeing Terrestrials dressed against the cold of Mars, it was a peculiar sight. It was an unpleasant one, too. Naked skin was not his idea of beauty, and clothes, while not as æsthetically pleasing as fur, were far better than bald skin. He was glad when the affair was over and Mike took him to an hotel.

"I've contacted Melly," said Mike, after he had slammed the door on the last of the publicity hounds. "She'll be over as soon as she can get away."

"To give me my money?" It was a sore point with Mervin that one of the conditions of his prize was that he had to receive it on Earth. It had been that, more than anything, which had persuaded him to come.

"The money?" Mike coughed. "Well, not exactly. The cheque will be presented to you at a big meeting sponsored by the Hands Across Space League. They wanted to get their finger in the pie and we may as well cement extra-terrestrial relations while we're at it." His face darkened. "Anyway, we had no choice. They insisted on holding the money. They even hinted that we might try to gyp you out of it."

"No!" Mervin was horrified at the thought. The thought of losing the money, that is, not the implication against the company. Mike took it the other way.

"It's unthinkable, I know, but the hint was plain. They said that they wanted to watch over you, you poor little alien you." He snorted. "Poor! With that ten thousand you'll be the richest teddy on Earth."

"On Mars, too," said Mervin smugly. He started as the door crashed open and a big woman, of indeterminate age, rushed into the room.

"Mike!" She flounced forward and kissed the thin man on the cheek. "So you brought him!" She stared at Mervin with an all too familiar expression. "Why you darling, sweet, cuddlesome creature you. Come to mummy!"

"No!" Mervin squeaked as he tried to dodge, then wriggled frantically in her arms. Mike, a sour expression on his face, rescued his charge.

"Cut it out," he snapped. "Let's get down to business."

Reluctantly, Melly sat down and tried to look business-like, but her eyes, as if of their own volition, kept straying to Mervin. In return he fought the desire to roll himself into a ball and listened to what Mike was saying.

"We've got to work fast before the interest has faded. I've arranged for full Press and television interviews, coupled with publicity for the Mush, of course, and the actual presentation of the prize money will be covered by a world-wide network. I've had the winning slogan printed on twenty million throw-aways, five million buttons and on a million presentation sets, the ones we give in exchange for box-tops."

"Sounds good," said Melly. "Does Mervin know about it?"

"He's learning now." Mike wet his lips and stared at the Martian. "You'll be expected to make a speech—you know the sort of thing. All about how grateful you are and how pleased you were to win the prize. I want you to plug the winning slogan all you can."

"Melly's Mush Makes Martians Merry," squeaked Mervin proudly. Mike shuddered.

"That's it, but you don't have to rehearse when I'm around."

"Leave him alone," said Melly. "I think he's cute." She simpered towards Mervin and edged forward. Mike grabbed her by the arm and led her towards the door.

"Stop getting sentimental over this fur-ball," he snapped. "This is strictly business, remember?"

Melly sighed.

For Mervin the next few days were a nightmare. He ached all over from both the gravity and the women who insisted on cuddling him at every opportunity. Even the

Hands Across Space League were no help; if anything the female members were worse than the outright publicity hounds. They were determined to be kind to him if it killed him, and Mervin, nursing his bruises, sometimes wished that they would drop dead. Not often though, and never very hard, for he was naturally kind-hearted. But even his patience was wearing thin.

The actual prize-giving was a big event. There had been bands, singers, dancers, celebrities and a horde of people who had nothing whatever to do with the occasion but who had somehow managed to climb onto the band-wagon. Mervin squatted on a low pedestal which brought his round, furred head level with that of an M.C., who had, apparently, stepped directly from the pages of a glossy magazine.

"Well, Mervin," he beamed. "And how do you feel?"

"Fine," lied Mervin. He felt terrible.

"Doesn't it make you proud and happy to have won this magnificent prize?"

"Yes."

"I thought so." The M.C. grinned at the cameras. "Now, before handing you this certified cheque for ten thousand credits I'd like you to tell our world-wide audience just how you came to write the winning slogan."

"Melly's Mush Makes Martians Merry," squeaked Mervin for perhaps the hundredth time. He paused and the M.C. nodded encouragingly.

"Go on."

"You want to know what made me pick those words?" Mervin expanded his chest. "Well, I could have said Melly's Mush—Merry Martians, but that would only have been four words and I wanted five. Or Melly's Mush For Happy Humans, but that didn't sound right. Or Merry Martians Eat Melly's Mush, but that wouldn't have been true. Or . . ."

"Wouldn't have been true?" The M.C. looked a little dazed. "But you eat it, don't you?"

"Eat it!" Mervin squeaked his horror at the thought. "Certainly not!"

"You don't?" The M.C. looked even more dazed. "Then what do you do with it?"

"We use it for fertilizer." Mervin felt that, somehow, he had said the wrong thing. "It makes wonderful fertilizer," he said hastily. "We spread it all around the roots of our crops and it makes them grow like anything. But we wouldn't eat it. We . . ."

In the sudden pandemonium he retained enough presence of mind to snatch his cheque.

Later, in the hotel room, Mike paced the floor and swore with deep feeling and versatile accomplishment.

"Fertilizer! And on a world-wide network, too!"

"It'll finish us," said Melly. She glared at Mervin as if she could have bitten him. "You horrible, nasty, ungrateful little beast! And after us paying you all that money!"

Mervin remained silent. He still clutched the cheque and hoped that he would be allowed to keep it, together with his fur. From Melly's expression he wouldn't have gambled on it.

"Fertilizer," said Mike again. He shook his head.

"It's all your fault," accused Melly. "Anyone with any sense at all would have found out what the nasty little beast was going to say." She began to sniffle. "All the years I've worked and slaved to produce the finest mush in the system, and now I'll be a laughing stock. How can we tell parents to feed it to their children now? How can we stay in business?"

"We can have Mervin certified as insane," suggested Mike. "Or we can obtain sworn testimony that he was bribed by our competitors. We can send a delegation to Mars and have them deny the foul slander that Melly's Mush is used there as fertilizer."

"That'll cost money." Melly glared at Mervin. "You've got to tell everyone that you made a mistake and that you simply love to eat Melly's Mush." She looked at Mike.

"Couldn't we show him on television eating a heaped bowlful of the stuff?"

"No!" Mervin cringed at the thought. "I won't do it."

Mike stared down at the squeaking ball of fur and shook his head. "I can't do it," he said. "I just can't do it."

"You must," insisted Melly. "It's our only hope."

"I can't." Mike was emphatic. "For one thing the Hands Across Space League wouldn't let us, and for another it would come under the heading of cruelty to animals."

"That's nonsense!"

"Is it?" Mike shook his head. "Have you ever eaten a heaped bowlful of Melly's Mush?"

"Well . . ." Melly avoided his eyes. "Well, no, but . . ."

"I have—once." Mike shuddered at the memory. "Mervin's right when he says it's only good for a fertilizer. When I think of how you used to cook, Melly, I want to beat my head against a wall." He smiled at her. "Now admit it, you don't really approve of people eating that mush, do you?"

"It's a well-balanced, highly nutritious food," she said weakly, then surrendered. "All right, so just between us two I think it's rubbish. But what about the business?"

"Sell out and retire. Or continue to supply a steady market, Mars." He ruffled Mervin's fur. "They can still find a use for the stuff. We can buy a farm and you can do all the cooking." He beamed at the prospect. "That way I can get rid of my ulcers and look a steak in the face again."

"Mike!" Melly seemed to suddenly become ten years younger. "Are you asking me to marry you?"

"Of course." Mike's beam became wider. "I couldn't do it before, not with you so rich, but now that Mervin's thrown a spanner in the works, why not? Will you?"

Mervin sighed as the two humans suddenly clutched at each other. Earth was a strange world, full of strange customs and he would be glad to get back home again.

Coming here had been the opportunity of a lifetime, but Mervin was glad that it couldn't happen more than once.

Fashion Me A Dream

by

JONATHAN BURKE

*IN THE NEW WORLD DREAMS WERE VERY IMPORTANT.
IMPORTANT ENOUGH TO BE CHANGED IF NECESSARY.
OR WAS IT THE DREAMS WHICH WERE CHANGED?*

PAUL DASHIELL'S MIND MOVED APPREHENSIVELY INTO THE full flow of the dream. It was an unusually clear dream. Released by the drug, all those hidden, subconscious motivations which normally produced a blurred and wildly erratic story were, for once, kept in focus.

He dreamt of Mariana. He was rescuing her from a dragon. The circumstances surrounding this feat were remarkably plausible—he was surprised at the creative abilities of his own mind.

And then there was a false note. The story lost its grip. The dragon turned abruptly into a travesty of his old schoolmistress. Paul began to shake with fear. The old harridan came towards him. Mariana was crying out to him, but he could not move. The schoolmistress raised her hand. The spell was broken, and he turned to flee, screaming.

The rest of the dream was chaos.

He tried to struggle out of it. This was not the sort of thing the Marital Control Board would approve of. It was retrogressive. The most dreadful variations must be appearing on the dials of the Brain Emanation Recorder.

He tried to shape his dream into something cool and intelligent. Dragons were out. Freudian worries about a dead schoolmistress were out.

He managed to get himself back into a fairly coherent dream about the present day. Mariana was still there. That was as it should be. And this time he was rescuing her from a robot helicar conductor which had run amok and was trying to crush her slim, alluring body to its metal bosom. Just like on an old-fashioned magazine cover.

Suddenly the vision clicked off, like an interrupted telecast.

Paul's eyes, which had seemed to be open, now opened in reality. The man in the sleek green overall came towards the chair and removed the electrodes from his brow.

Paul said, apprehensively: "All right?"

"Give us time, son. Got to check. But it doesn't look too good to me. Very queer wave pattern."

"But it's got to be all right," said Paul. "I love her."

"They all do," said the operative, with a bored smile. "That's what brings 'em here." He shook his head. "You'd do better to accept the Advice Bureau ratings, and take one of the batch you've been offered. It always works out better that way. Honest."

Paul could not bring himself to answer. He sat and waited. At last the machine in the corner began to tick out a message. The operative went languidly over to look at the dial, shrugged, and turned back to Paul.

"Sorry. Like I thought. Nothing doing. Quite incompatible."

"But——"

"Any complaints," said the weary voice, "you can file them at the desk downstairs. There's always the Appeal Court. But your story had better be good." He held out a punched chart. "Here's your record. Brood over it, son."

Paul went out into the white, aseptic corridor. He walked along to the lift, and Mariana came from the opposite direction to meet him. There were tears in his eyes. He put his arm round her, and kept it round her when they reached the ground floor and walked across the austere beautiful entrance hall to the desk.

There was a robot clerk behind the desk. It was best to

have a robot here—robots had no hearts, and were unmoved by tears. And plenty of tears had been shed in this place.

The robot said, tonelessly: "You wish to give notice of appeal?"

"Yes," snapped Paul. "It's a disgrace. How the blazes can a lot of machines lay down laws about human behaviour and . . . and compatibility? It's time there was a big outcry about this. It's time——"

"Perhaps you would care to have a word with me before you leave?"

The quiet, sympathetic tone brought Paul round on his heels. A man, in the inevitable green clothing, stood behind him. This time the uniform was rather more casual, but the badge on the arm proclaimed high status.

"I," said the newcomer gently, "am Deputy Controller Young. Do come into my office."

Mariana sniffed. Paul cleared his throat aggressively. The two of them followed the deputy controller into a neat, unostentatious room beyond the desk.

They sat down.

The deputy controller said: "You are distressed by the failure of the application for a marriage permit?"

"Of course we're distressed," Paul burst out. "It's just ridiculous. Sorting out human beings as though you were grading eggs——"

"Not a bad simile at all," smiled the deputy controller. "It's not unreasonable to grade eggs, is it?"

"But you can't treat human beings that way."

"A great deal of the unhappiness in the world has been caused, in the ignorant past, by a refusal to do just that. By the end of the twentieth century it was generally agreed that Genetic Councils were a good thing—a man and woman whose marriage would inevitably produce warped or unsatisfactory children were simply not allowed to marry. You know the result—an infinitely healthier and happier race. We cut down disease, wiped out many hereditary defects, and it really took very little time for people to accept the fact that they should only marry within their own health

groups. The choice was wide enough. And nobody could openly advocate the spread of disease."

"That was different," protested Paul. "Health is one thing. Obviously you don't want to marry if you are going to bring defective children into the world. But to try and impose mental conditioning as well is . . . well, it's dictatorship of the worst sort."

Mariana added, in a trembling voice: "We're in love. We'll be unhappy for the rest of our lives if we're kept apart."

The deputy controller winced slightly. The Marital Control Board was always wary of sentimentality. This sort of appeal was like swearing in church.

He said, levelly: "Mental health is just as important as physical health. Mental compatibility is essential to a happy, well-balanced marriage. By analysing your dream emotions we have found that you would make an unhappy marriage. Your children would be brought up in an unsettled, dangerous atmosphere. You would be a disruptive force within the community. Believe me, we do not make these decisions in any arbitrary way. By releasing your subconscious desires, we have been able to compare your mental rhythms, and from the dream patterns provoked in you by the drug we have seen quite clearly that you would not be suited to one another. You were each given the chance of taking a mate from a very large group of suitable candidates. You, Mr. Dashiell, should select one from Group 25, to which you belong. But when you both still insisted that you would not do this, we allowed you to undergo the brain emanation tests. We do sometimes find unsuspected affinities by means of this check-up, and at the discretion of the Board couples can be allowed to marry. I'm afraid that you two have failed, however."

Mariana's eager face was contorted with defiance. She cried: "We'll go away together. We'll get married——"

"No one will perform the ceremony for you without our official sanction."

"Then we'll live together, and have children, and not bother about getting married."

The deputy controller smiled thoughtfully. "Your . . . er . . . Mr. Dashiell would not be happy under such an arrangement, would you, Mr. Dashiell?"

Paul flushed. "Er . . . no. I want to marry her—properly—so we can be together for always."

"As the tests showed," murmured the deputy controller, "you have a great respect for formality and the present regime, in spite of occasional moods of romantic rebellion. That is one reason why you would not be happy with this young lady." He shrugged. "However . . . Do you wish to give notice of appeal?"

"What's the use?" said Paul bitterly. "Everything's stacked against us. We don't stand a chance."

"Not really," agreed the deputy controller sympathetically.

They walked out into the open air. The flight of white steps fell away below them. Slowly, they went down. Mariana was crying softly, steadily.

Paul said: "There must be something we can do. There's got to be something."

They reached the foot of the steps, and turned towards the monorail station. People moved to and fro. There was a contented buzz of voices. The sun shone, and carefully regulated music sang from the diffusion gratings in the pavement.

A little man with thin lips came up alongside Paul and Mariana, and fell into step with them. Paul glanced indifferently at him; glanced back at Mariana; then looked again.

The little man was holding a glowcard in his palm. He turned it cautiously towards Paul, under cover of his arm. It winked its message at Paul and Mariana.

THWARTED BY THE MARITAL BOARD?

Let us re-make your dreams

Investigation success guaranteed

31 Einstein Boulevard.

"Guaranteed to get you through the Marital Control Board examination," muttered the little man from the corner of his mouth. "Results in six weeks. You'll be married a week later."

Paul hesitated, then reached for the card. The little man ran his finger along the message at the top. It was wiped off, leaving only the address.

He said: "If you get picked up, wipe the address off, won't you?"

Then he was gone.

Paul and Mariana moved into the queue for the monorail car.

Mariana squeezed his arm. "Darling, what is it? Let's go and find out. We must. We've got to try everything."

"Whatever it is," said Paul dubiously, "it must be illegal."

"What about it? Darling, sometimes you sound so stuffy. Don't you want to marry me? Don't you love me?"

"Yes," said Paul. He glanced down at the address. "Let's go."

They went.

Reaching Einstein Boulevard involved changing at a monorail intersection and travelling swiftly up to the north of the city. They were there in ten minutes, picking out Number 31 as a tall building with square windows, a heavy door, and no identification of any sort outside apart from the number on one pillar of the portico.

Mariana's fingers trembled now on Paul's arm.

She said: "Do you think it's a fraud? Maybe it's a confidence trick—robbery—something . . ."

"We're going to find out, anyway." Once Paul started on something, he was stubborn.

He marched up the steps and looked steadily at the identification panel for a moment. A bell rang within the house, and the door swung open. They entered a narrow, lofty hall. The building was old—a nineteenth century relic in this slightly faded district of the metropolis.

A man of Paul's height, with iron-grey hair and a quizzical smile, came towards them.

"You have come from the Marital Board?"

Paul held out the glowcard. "We were given this. Please tell me what it's about. We don't want to build up our hopes too much if——"

"One of our regular men. Mm, yes. We always have a representative waiting outside that unpleasant place. So many young folk need our assistance."

"What assistance?" Mariana was breathless. "What can you do—is there any way . . . I mean, how can anyone get past the Board?"

The grey-haired man raised one hand in what might have been a mild protest, but looked more like a benediction.

"Do come along with me," he said gently. He led the way towards a door on the right, and as he went he spoke over his shoulder. "My name's Edgeworth. I deal in dreams. I have an excellent supply, suitable for all occasions. Since you have taken the trouble to follow up the approach made by our representative, I think I may have one or two lines in which you will be interested."

Mariana hesitated as the door opened. She looked at Paul. Her eyes asked if they should retreat, now, before it was too late—was this man a lunatic?

But there was nothing terrifying in the room itself. It had a pleasantly personal, untidy air about it. It was in complete contrast to the impersonal neatness of the deputy controller's office in that heartless building which they had so recently left.

"Do sit down," said Edgeworth.

They sat on an old sofa which might have been a valuable antique if it had not been so decrepit.

Paul said bluntly: "Does this card mean that you can provide us with some means of getting through a Marital Control Board examination?"

"It means precisely that," said Edgeworth happily.

"The whole thing is monstrous." The accumulated resentments of the day burst out in Mariana, and she shook her auburn hair furiously. "Someone ought to *do* something. There ought to be a campaign—the whole country ought to be aroused—the whole world . . ."

"I'm afraid," said Edgeworth, "that the majority are quite content. They don't want to be aroused."

"Stodgy," said Mariana. "Unimaginative."

"Stodgy, if you like. But they are content. They do not wish to interfere with the present system, and although there are many frustrated young couples like yourself, there certainly aren't enough to lead a large-scale revolt." He smiled. "If you wish to defeat the Marital Board, you must do so by cunning."

"How?" asked Paul.

"I will make you a dream. A formal, carefully-designed dream will be artificially induced in your mind until you get into the habit of thinking of it at will. After five or six weeks you will be able to turn it on whenever you need it—that is to say, when you are undergoing the official tests for marital suitability. You will both be given suitably matched dreams: the responses produced on the brain emanation recorder will tally perfectly, and the Board will be unable to withhold permission for you to marry. Just as a matter of tact, of course, you would be well advised to undergo the test at another centre—one in the provinces somewhere."

Paul and Mariana looked at one another. Hope flamed again in their eyes.

Edgeworth said: "Have you a picture of each other?"

Paul took out a dimensiograph snap showing himself and Mariana together.

Edgeworth nodded approval. "This will do admirably. We need it for the symbolic focus." He got up and held out his hand. "Please come the day after tomorrow for the first sitting."

At the door, Paul turned abruptly.

"This is illegal," he said.

"I am well aware of that, my young friend."

"Your fees for this . . . this illegal operation must be pretty high."

Edgeworth smiled. "Fairly high. One thousand credits."

Mariana went pale.

Paul said: "I haven't got a thousand credits."

"We are quite prepared to accept deferred payments," said Edgeworth smoothly, "after the operation has proved a success. No results, no payment. I will have a form

of contract ready for you when you come next time. You will come, of course?"

Paul put his arm around Mariana's warm, supple shoulders. He said: "Of course we'll come."

The first apprehensiveness soon faded. It was obvious that Edgeworth knew what he was doing, and obvious that he was making an extremely profitable living out of it—there were always young couples waiting to go in for treatment, or waiting to leave, when Paul arrived.

After the first two visits, he and Mariana attended separately.

"It is essential," Edgeworth explained, "to become accustomed to the dream pattern absolutely on its own. It will not do if you introduce your own emotions into it; and that is more likely to happen if you are aware, as you drift off under the influence of the drug, that your—er—chosen mate is herself very close to you. Actually, I advise you to see as little as possible of one another during the period of treatment—it will help enormously."

Mariana objected to this. She turned her full, pouting lips up towards Paul, and told him that if he was willing to do without her for weeks on end, he couldn't really love her. But Paul was adamant. He was determined to succeed. He kissed her, and told her that she must be brave.

He attended twice a week, and gradually found himself sinking into the pattern of the dream.

The dream . . .

It was a neat, clean, tidy dream. It was easy to grasp, as a popular telecast play was easy to grasp—the outlines were bare, the conventions accepted readily, the background familiar.

It was built, in fact, around the supposed ideal life of every young technician. In it, Paul found himself leaving his factory in the evening, riding home on the monorail car, being whisked in the lift up to the fifteenth floor where his flat was situated, and affectionately kissing his wife. Behind her the standard evening meal was almost ready to be ejected from the delivery chute.

His wife.

She was a pretty girl, it had to be admitted. She was very like Mariana—Edgeworth had evidently gone to a lot of trouble in formulating this image—and yet she was not Mariana at all. When he was awake, Paul realised that she was just a cold travesty of Mariana; just the sort of symbolic figure of which the Marital Control Board would approve. All right, all right. If this cold, lifeless red-head had to feature in his dream for the next few weeks so that he should eventually be able to marry Mariana, all right.

Over and over again he ran through the simple story, the simple sequence of events. Leaving his job, going home, quietly greeting his wife, sitting down to a wholesome meal. Talking to her. Watching the telecast programmes for an hour and a half. Drinking the final soothing drink of the evening, consulting the wall clock, turning towards the bedroom, and then . . .

Then the dream clicked off. He was left with a vague feeling of curiosity. But no more. The girl was only a dream figure—nameless, even, he realised with a flicker of amusement.

Over and over again. He found that he could step into it at will. Fragments of it even became mixed up with his own dreams at night.

"Good," said Edgeworth approvingly, when Paul told him this. "It's got to become almost second nature, and that's an excellent sign. Relax . . . let it come when it wants to."

Paul relaxed. He found that he could not only turn on the dream at will, but also turn on the feeling that this was the sort of home he really wanted, that this was the sort of wife he wanted, that everything was perfect, that no right-minded person would want to live any other sort of life.

By the time he came to face the Marital Control Board again, his emotional responses would be perfect. Their machines could be fooled. They would pass him, and he and Mariana would be happy.

Unfortunately, Mariana herself did not seem to be coping with the situation nearly as well as Paul was doing.

He had strictly maintained his decision not to see her too often during the course of treatment. They met only at week-ends; and by the time the third week-end came along, he sensed a reserve in her manner.

"Getting along all right with your dream?" he asked lightly, making a joke of it which they could share.

"Mm," she said. She sounded remote, as though she did not wish to be disturbed.

Paul took her arm. They walked under the trees, and light made an eccentric design on her head, filtering through a network of leaves above. He said: "Mariana . . . it won't be long now. We've just got to be patient."

"Oh, patient," she echoed irritably.

She jerked her arm away. They walked apart for a moment; then Paul said: "What's wrong?"

"Oh, nothing."

Still she was remote and uncommunicative. It was not until they stopped for a drink at the usual autostall that she turned to him with a glimmer of the old affection, and suddenly laughed.

She said tentatively: "My dream . . ."

"Yes?" he prompted.

"The man in it is remarkably like you, Paul. And yet not like you."

He nodded. "That's the way it is with me. I've got a facsimile of you—but the differences are pretty obvious to me by now." He swayed towards her, trying to kiss her. But she moved to avoid him.

"Paul . . . in some ways, I wish you were more like this . . . well, this dream man. He's much more impetuous. He really goes at things—isn't always talking about being patient and sensible . . ."

Paul was taken aback.

Then Mariana laughed again, and let him kiss her, and they walked on. But several times during the course of the evening there were awkward silences; and the memory of her words echoed on in his mind after he had left her.

He was going to have words with Edgeworth about this mess-up.

Edgeworth was apologetic. "Oh, dear. I had no idea that this sort of thing was happening. Women are romantic by nature, you know. In the past they fell in love with film stars; then with telecast stars; and under this treatment one has to be careful that they don't attach their yearnings to the symbolic figure with which I have provided them in their dream. It frequently happens. But we usually get warning in plenty of time, and can sort the situation out."

"Well, sort this one out," said Paul irritably.

He was still feeling annoyed, his nerves on edge, when he sat in the usual chair for his dream session. Mariana was fickle and impulsive—she was even capable of falling half in love with shadows. The sooner they were married the better. She was really not at all dependable.

He entered his dream in the same mood of exasperation. But its reassuring sameness, its dependable rhythm, helped to soothe him. He found it easy to clear his mind by surrendering to the neat, formal situation with which Edgeworth had supplied him.

Perhaps it was the irritation set up by Mariana that recurred when he came out of the dream. Its soothing effect did not last. He felt thwarted and frustrated as the picture of the bedroom door faded, and he found himself back in the chair.

Edgeworth said: "I think you're getting on splendidly. Maybe we don't need to run the full course with you. I'd say you were ready to face the Marital Board investigation whenever you like."

Paul left the building sunk in thought. Maybe he was ready, but Mariana certainly wasn't. She had no patience. She could not concentrate on essentials. Instead of regarding the dream with scientific detachment, as a means to get her through that gruelling mental enquiry, she was succumbing to it—believing in a shadow man, like any lovesick adolescent.

Somebody came along the boulevard towards Number 31. Paul glanced at her indifferently.

And stopped.

She turned, with the faintest lift of an eyebrow.

He said: "But you're . . ."

He could not go on. He had come home to her night after night, talked to her, eaten with her, sat beside her and watched telecasts, and turned with her towards the bedroom. But he did not know her name.

She said: "I'm Elspeth Hamilton, actually. But I don't think I know you."

It was absurd. She was the same—cool, charming, unreal . . . yet real. And she did not know him.

He said: "I'm Paul Dashiell."

"Oh."

It meant nothing to her. She made a movement as though to walk on. Desperately, Paul said:

"Where are you going? Do you—that is, are you working in Number 31? You couldn't be . . . could you?"

She looked up at the expressionless facade of the building.

"I helped the tenant here with some work a few weeks ago," she said. "I was just dropping in to see how the work had progressed. I don't often come along here."

"Walk with me a little way," he said. "I can tell you how the work has progressed."

Deputy Controller Young emerged from his office and took the list of names which had just been delivered through the mail chute. He was glancing down it when the door at the far side of the quiet, austere hall opened and a young couple came out.

The deputy controller glanced up. The young man was smiling gravely at the young woman; and she was responding with a self-possessed, slightly prim little smile. They walked past the deputy controller without noticing him.

Just as they reached the entrance, an auburn-haired girl came brusquely in, followed by a rangy young man who was whistling cheerfully. The two of them leaned over the robot at the desk, babbled an enquiry, and went on their way, laughing.

From the entrance, Paul Dashiell's voice drifted back across the hall.

"Well, *they* won't get through the examination."

"Do you know them?" asked the girl casually.

"I knew one of them," he said. For a moment he looked puzzled. Then he said, with a shrug: "I used to know the girl. Mariana, her name was. Terribly erratic. Fickle and . . . well, all over the place—no fit wife for any sensible young executive."

Elspeth Dashiell smiled.

"Am I a fit wife?"

"I know you are," he assured her as they went out. "I know you're perfect."

The deputy controller nodded, and went back into his office.

"Perfect," he echoed.

His visitor stretched his legs. "Another couple nicely settled?"

"Young Dashiell," said the deputy controller. "His name will be on the next list, I imagine." He passed the current list across. "Good work. You really are doing a noble job."

"I always wonder," said Edgeworth, "whether anyone will ever refuse to pay up the fee, on the grounds that the husband or wife eventually accepted is not the one who was originally proposed."

The deputy controller shook his head. "By the time they've had your dream treatment, they delight in being good citizens and accepting the pattern of the regime. And not paying your debts is no sort of behaviour for a good citizen. Besides, they're so happy they usually feel they owe you more than they can ever pay."

"True," said Edgeworth. "As I told you at the start, this is a much better way of winning the few recalcitrants over than a show of force would be. And"—he smiled benevolently—"it's a much better way of collecting revenue than any other we know. It keeps income taxes down."

Miniaturization

by

Walter G. Speirs

AS OUR CIVILIZATION BECOMES MORE DEPENDENT ON ELECTRONIC EQUIPMENT IT IS ESSENTIAL TO FIND A WAY TO REDUCE BOTH COST AND SIZE OF SUCH COMPONENTS. THIS ARTICLE SHOWS HOW IT CAN BE DONE.

ONE OF THE MOST REMARKABLE DEVELOPMENTS OF THE Twentieth Century has been that of electronics, brought about by the discovery, just fifty years ago, of the thermionic valve and by its mass production. At first, any device using electronics was considered remarkable; then users began to expect reliability, cheapness and a tremendous increase in its range of application. These needs were met, after a fashion, but only by a large increase in the complexity and size of units, together with the attendant difficulties of dealing with unit failures and servicing. During the last ten years the weight of electronic equipment carried by an aircraft has increased by over ten times, and this increase has been paralleled in many other spheres of transport and industry. Nowadays, it only needs a blown fuse, a short circuit, a loose connection or a valve failure to almost cripple a plane or ship.

The problem has been met by a tendency towards smaller and smaller electronic equipment, the design and manufacture of equipment following this trend being known as miniaturization. It is the answer to the low weight, low cost and high reliability required of modern electronics and, as with so many other modern trends, it is the result of a number of advances in different fields of research, particu-

larly those that have led to new construction techniques such as printed circuits, automatic assembly, hermetic sealing and the use of transistors.

The marked increase in the complexity of electronic devices during the last decade is shown in such machines as digital computers, automatic electronic telephone exchanges and guided missile and industrial controls. But this complexity is made up of a large number of simple circuits and units that, when properly designed, readily lend themselves to automatic production and assembly. The design is all-important, as only by scrapping the established methods and concentrating on the functions of equipment and the best production methods is it possible to take the fullest advantage of modern techniques.

Miniaturization can be divided into two stages, the first being the reduction in size of the components, such as thermionic valves and transformers, and the development of new, smaller devices to replace them. Miniature thermionic valves have almost reached their ultimate smallness compatible with efficiency and ease of manufacture, and electronic engineers are turning to the semi-conductors for transistors to replace them. Transistors can be made as small as is possible without reducing their efficiency.

With this reduction in size there is a need to protect fragile components against damage and the method of "potting" has been devised to do this, and to join them together to form convenient sub-units for automatic assembly. The connected components are hermetically sealed in a block of plastic or rubber which is poured and chemically set around them, the plastic making up about a third of the weight of the block. All copper or brass surfaces must be first tinned or silver plated or they will prevent the polymerisation of the plastic. Each component is protected against mechanical shock, vibration and moisture and is cheap enough to throw away in the event of a failure.

But there is not much point in miniaturizing the components unless there is a corresponding miniaturization of the chassis and the conductor circuits. Early equipment was bulky and heavy, because of the massive wood and metal

cabinets, as well as the size of the components, and stage two began when screening against outside interference became necessary, this usually being done by lining the cabinet with metal foil. It was not long before the foil was made thicker and completely replaced the outer box, so developing the modern stamped metal cabinet.

The next step was the most ingenious of all, the idea of the printed circuit and, in spite of its early drawbacks, it is being used to an ever-increasing extent, particularly by the U.S. and U.K. armed forces. The early printed circuits were blocks of plastic, glass or ceramics (pottery) on which the circuits were stamped or printed in copper or silver. The silver circuits were often printed as inks on glass or ceramics and heated to convert the ink into a continuous silver strip. The pattern of lines can be on ceramic wafers, on the outside of plastic blocks containing small components, or on the inside of plastic cases in which the units are mounted. These are particularly useful where large size and weight are intolerable and price is not too important, as in hearing aids.

During the last war the U.S. developed proximity fuses for A.A. shells in which the components were made as an integral part of the circuit, but now the tendency is to use separately manufactured components. These are automatically soldered to the circuit, an absolutely essential method for the mass production of miniaturized circuits; the individual soldering of joints in miniaturized equipment is a highly-skilled, tedious and difficult job due to the tiny amount of space between the components and the closeness of the circuits.

The straightforward printing of miniaturized circuits is now being used for digital computers, hearing aids and aircraft equipment; in the latter case it is estimated that every lb. saved is a saving of £200 during the average life of an aircraft. The drawbacks to this type of printed circuit unit include the brittleness of the printed lines, the extraordinary difficulty in servicing it due to the inaccessibility of the crowded components, and the fact that they should, theoretically, be even closer to one another for the maximum saving in space and weight.

Recently, a new approach to the idea of printed circuits has resulted in a two-dimensional circuit on a flexible sheet that can be folded and made to fit a three-dimensional pattern. These printed foil circuits have all the advantages of both the three-dimensional wired circuit and of the two-dimensional method of manufacture. They will eventually replace all the older methods of mass producing printed and wired circuits, and are already being used in the U.S.A. for radio receivers, the basic circuits of television receivers, television tuners and for very short wave wave-guides.

The circuit consists of a very thin, flexible sheet of insulating material with metal foil patterns on one or both sides. It can easily be manufactured as a flat sheet and then soldered, punched, slit, insulated and creased before being folded into the required shape. Sub-units and single components are soldered to the circuits with plenty of space between them, although they are close packed when the whole unit is folded. Servicing is simple, the flexible sheet being just unfolded so that all the parts are immediately accessible.

It is, in effect, a second degree of miniaturization.

The method of design and production is also simple; the three-dimensional pattern of the components is projected onto a surface and, from a drawing, a photo negative is made which can be used in two ways, either in a photo-mechanical or in an off-set printing process. In the first method one-thou.-thick copper foil on an insulating base is coated with a light sensitive enamel, exposed to ultraviolet light under the negative and developed to give light-hardened areas. These remain when the rest of the foil is dissolved away by acid to leave the circuit as a series of thin lines of metal foil.

The other method involves making a printing plate and printing the design on the foil with glue. This is dusted with powdered pitch, which sticks to the glue, and is then heated to melt the pitch so that it protects part of the surface whilst the remainder of the foil is removed in an acid bath. The beauty of both methods is that large-scale production can be carried out using only conventional printing equipment

and methods such as are found in any moderate-sized dark room, printing shop or drawing office.

The flexible foil circuit sheet is not mechanically strong and the design of the unit must take this into account. Instead of using a container, the circuit sheet can be supported around the larger components, such as the tuning assembly, or the various components, and the sub-units can be so designed that they lock together to form a rigid, self-supporting unit when the unit is folded, whilst another method is to make the circuits into a tape that can be wound, together with the sub-units, and stuck with a pressure adhesive.

The complexity of electronic systems is a clear guide to the usefulness of the printed circuit methods. Thermionic valves can perform switching operations a thousand times as fast as the best mechanical equipment, and ordinary electronic circuits can be made a hundred times as complex as the same volume of mechanical equipment. Ordinary electronic equipment is, therefore, a hundred thousand times more complex than its mechanical equivalent and, by miniaturizing using transistors, this figure can be raised to ten million. This is far and beyond the limits of normal engineering techniques although it is far less than the complexity of the human nervous system. The only method capable of producing such circuits on a large scale is the printed foil technique.

The amount of heat generated in a small space is an important factor in the design; some miniaturized equipment still produces as much heat as the larger equipment from which it was derived. The smaller cooling area means that the unit tends to become overheated and burn out, but, on the other hand, equipment in which thermionic valves are replaced with transistors need only 10-50 volts and such small currents that the heating effects are negligible. Only a thousandth of the original wattage may be required by replacing a pentode valve in a television set with a transistor.

Some of the components can be built into printed circuits; resistors can be put in by spraying through a screen to deposit rectangles of graphite which will disperse up to one watt of energy for every square centimetre of surface.

Accurate resistors of about 1,000 ohms are made for digital computers by spraying a glass plate with graphite and accurately trimming the resistors with an automatic engraving head, the cutting being automatically controlled by the change in the resistance of the resistor itself. Metal films can be deposited and used as resistors of up to about 100 ohms, but not for high resistances.

Communication and information-handling devices have always suffered from the defect that large amounts of energy are wasted as heat during the amplification of comparatively small currents. Miniaturization will do away with most of this inefficiency and will undoubtedly be used in other fields than those using complex electronic systems. It may not be long before we have wallpapers containing embedded foil circuits that will thermostatically keep a room at a required temperature. It is possible to construct electric motors and transformers in which all the magnetic and electric circuits are built up of metal and plastic foils, doing away with all of the coil-winding and most of the metalwork.

If miniaturization is now important, think what it will mean in the future as the complexity of gadgets continues to increase and the art of living tends to become a science; when the mere fact of existing will depend on inbuilt safety mechanisms to protect us from the speed and complexity of our own machine civilization.



WE, THE BRAVE

by

Alan Innes

*THE YOUNGSTER WAS FULL OF ROMANCE OF SPACE
AND ADMIRATION FOR HIS HERO, BUT THE HERO
COULDN'T SHARE HIS FEELINGS.*

I SAT AT THE END OF THE BAR AND STARED AT THE MAN IN the mirror. A broad man, stocky, dressed in a rumpled uniform of pearl grey. I moved a little and caught the golden flash from the shoulder insignia. I sneered and he sneered back. I lifted my glass and we toasted each other in silent contempt.

The whisky didn't help. It burned down my throat and burned my stomach, but it couldn't burn the taste from my mouth and the smell from my nostrils. Nothing could do that. Not all the baths ever drawn, all the showers ever built, all the rains and all the seas in all creation could ever . . .

I caught myself and finished the whisky.

"Another?" The voice was young, the speaker was young, the eagerness was more than young, it was stupid. I stared at him in the mirror. Pink-cheeked, eager-eyed, crew-cut hair-do, slender build, all the hallmarks of the hopeful. I sighed.

"Please allow me to buy you a drink," he insisted, not realizing that he was saying the wrong thing. You don't ever ask a man to let you buy him a drink. You buy it and then hope he will accept it. I nodded.

"A large . . ." He looked at my empty glass and then at the bartender. "A large whatever it was and a lemonade."

"He don't want no chaser," explained Sam. "He drinks it neat." He tipped the bottle and pushed the refill towards me. "And?"

"The lemonade was for me," said the youngster with simple dignity, and then had to go and spoil it by blushing. "I don't drink."

"You will," promised Sam. "Won't he, Tom?"

I shrugged and the man in the mirror shrugged with me. I winked at him and he winked back. Then I remembered and both of us buried our faces in the whisky. It was a waste of time.

"My name is Weston," said the kid. "John Weston. I hope that you don't mind my talking to you?"

I set down the empty glass, rapping it on the counter just loud enough for him to get the point. He did and, while Sam was doing what he was paid to do, I found time to wonder as the colossal effrontery of strangers who buy you a drink and automatically think they've bought your listening time, too.

"The bartender called you Tom," he said, and left it hanging. I let it hang, too.

"I've just come from the field," he said when the silence was beginning to get awkward. "I always come out to see the rockets leave and land." He laughed self-consciously. "I suppose that seems silly to you, doesn't it?"

I nodded.

"I envy you," he said suddenly. "You're what I want to be. I'm studying hard and my application's in, and I hope . . ." He took a gulp of his lemonade. "Can I buy you another drink?"

It was too much.

"Listen," I said. "You can buy me a drink, yes. You can talk at me, yes. But if you want me to talk to you, no. Get it?"

"I'm sorry," he stammered, and for a horrible moment I thought he was going to cry. "I didn't mean to bother you, only . . ."

"Forget it." I turned and stared at the man in the mirror. Something about him made me feel ashamed, so I turned back and looked at the kid.

"You want me to talk about space," I said. "You want me to tell you all about it. You want that so much that you're willing to feed me liquor so that you can get the real dirt. Right?"

He nodded. He was honest, anyway.

"All right, we'll talk. What do you want to know?"

"Everything." He was so pleased he didn't know where to begin. "I know how hard it is to get selected for the Service. I told you that I've applied and am studying."

"Astrogator?"

"That's right." He stared at my shoulder. "You're an atom-jack, aren't you." It wasn't a question. "How did you know I wanted to be an astrogator?"

"Everyone does. More pay, less work, and the next step is Captain." I didn't tell him that only one per cent. of applicants ever get beyond bottom grade. I answered his next question before he asked it. "I drifted into space from atomics. That was before they had the Academy, and I had to learn the hard way. I was young then, clean . . ." I managed to control it, though something in my expression must have warned him something was wrong. I took time out to wash my mouth with whisky and when I looked at him again I'd pushed it to the back of my mind. "What's next?"

I wasn't fitting to pattern and both of us knew it. Normally, a spaceman is only too pleased to talk. It's the reaction from seeing the same faces for too long, so that a stranger, any stranger, is welcome company. Especially a stranger who buys the drinks and is willing to listen. But, with me, things weren't normal.

"I've read a lot," he said slowly, "but there's one thing I can't quite understand. All that danger out there, how do you manage to live with it and keep sane?"

And there it was. I'd been expecting it and, normally, I'd have helped spread the legend, but for some reason I couldn't forget the last trip. Danger? Yes, there was danger all right, but not quite the same as he meant. I don't know what it was like in the old days; pretty grim, I expect, but now, riding a rocket ship is just about as dangerous as riding a subway. I tried to tell him the truth, but, seeing his expression, I knew that I was doing him no favour. He just didn't want to believe.

"Look," I said patiently. "You think that a rocket trip is all risk. Well, it's not. You climb aboard, you strap down, you get up and stand by for emergencies, you strap down again and then you get out at the destination. That's all."

"But what about accidents?" He must have thought I was pulling a line. "I've seen the TV and read the books. What about meteors, and leaks, and blocked jets and . . ."

I tried again.

"I've been in space a long time, son, and I've never been in a ship yet that was hit by a meteor. Hell, those things are so small all they'd do would be to punch a hole in the hull, and there's an internal goo which takes care of leaks. Blocked jets exist only in the comic books. What's to block them? Engine failure?" I shrugged. "How? No moving parts and, anyway, we only use them for take-off and landing."

I'd upset him. I could tell it from the way he looked, and I wondered why people get so hurt when their private dreams are shattered. He probably thought that each rocket flight was a gamble with certain death, with bodies unloaded at the end of each trip, and that what the hard-drinking spacemen were noted for was to drown their sorrows. We were hard-drinking, all right, but it wasn't to drown any sorrows. It was because we were usually as bored as hell with not

knowing anyone, and because there wasn't anything else to do. Well, almost.

"You surprise me," he said slowly. "How can anyone travel through the utter cold of space for weeks on end, shielded by a thin hull, riding on the top of a mountain of high explosive with the slightest accident leading to certain destruction, and discount it as just a day's work?" He smiled, then. "Of course! Naturally, you'd get cynical. That's the only possible answer."

He was stubborn, but I'd started something and I wanted to see it through.

"Look, son," I said gently. "There's an awful lot of bilge written and talked about space. For one thing it isn't cold. Space is a vacuum, and a vacuum can't have a temperature. You need mass for that, molecules moving about. Surely you've studied elementary physics?"

"Yes, but . . ."

"Then you know that the only way a rocket ship can lose heat is by radiation. Talk of the frigid cold of space is bunk. It don't exist." I was getting a little drunk or I wouldn't have bothered to argue with him. "Accidents? You tell me how. With the electrical circuits all in triplicate, that goo I was telling you about, and nothing solid for umpteen million miles. With fool-proof engines which aren't even working most of the time, canned food and sterile conditions, ground-based radar monitors for the take-off and landings. How can there be accidents leading to certain destruction?"

I'd shaken him. I could tell it from the way he toyed with his lemonade, but he went down fighting.

"All right. I'll admit that, mechanically at least, the ships are safe. But what of the romance? The breathtaking vista of the naked stars? The sense of power and movement? The knowledge that you are crossing the void and blazing a trail to new worlds?" He stopped for breath and I pricked the bubble.

"Romance? Well, if you like to call getting beaten up twice a trip with high-G pressure, romance, I suppose you could be right. But forget that vista thing. The only one who gets to see the stars is the astrogator, and he has to climb in his special cubby-hole to do it. Metal and glass don't wed together so good at extremes of temperature," I explained, "so we dispense with the view. We dispense with quite a lot of other things, too. The rest of it can be covered with one word. Boredom."

"But you carry spacesuits," he protested. "I know you do." He looked anxious. "What's the matter? Have I said something wrong?"

"Forget it." I fumbled for my glass and almost choked over the whisky. It didn't do anything to the taste in my mouth. Acid may have, but I didn't have any acid. Sam, guessing what was wrong, refilled the glass without waiting to be asked.

"Has he told you about it, kid?" He looked at the youngster. "A hell of a thing to happen to any man. I heard about it from Gresholm." He shook his head at me.

"Shut up!" I swallowed the whisky and held out the glass for more. The kid looked eager.

"What was it?" He almost danced with impatience. "What happened?"

"Hasn't he told you?" Sam looked surprised. "I thought that's what you were gassing about. Hell! Tom's a hero! You mean you haven't heard?"

"No."

"Then you've got a treat coming." Sam stared at me. "Twenty days, wasn't it?"

"Eighteen." I could feel the taste in my mouth and the smell in my nostrils. "Forget it, will you?"

"Why should I?" Sam had known me long enough to get away with talking like that. "I think you did a great thing out there, and I can't see what you've got to be ashamed of."

It's men like you who make the Service what it is, and I'm not the only one who thinks so." He winked and jerked his head to where a blonde sat on a high stool. She smiled at me.

"A new one?" I wasn't interested, but I didn't want to hurt his feelings.

"She's not what you think. Molly's a stenographer over at the Admin. block. Yendle's daughter. You remember Yendle."

"I remember him." I stared at the blonde again. "So that's his daughter."

"Was that Captain Yendle who died on Mars?" I'd forgotten the kid, but he hadn't forgotten me. I nodded.

"That's right. He got stinking drunk one night and lost his way back to the ship. By the time they missed him he was frozen solid." I stared hard at him. "That isn't the official version, you understand, but that's the way it happened." I wished that he would go away.

"Tell me what happened to you." He gestured towards Sam, and I wondered how much he had left of his allowance. Not much, I imagined, what with the prices Sam charged. Still, I'd warned him, and he was getting the real dirt. "Please, Tom." He blushed as he used my name. "What did happen?"

I couldn't get out of it if I wanted to. Not with Sam leaning on the bar and Molly moving towards me. Not if I wanted to stay popular.

"The dangers of space aren't in the equipment," I said. "They've made that pretty fool-proof by now, but the one thing they can never guard against is the unpredictable. When you're dealing with humans you are dealing with something liable to blow up in your face at any moment." I looked at Sam. "Remember Edwards?"

Sam nodded. The kid looked eager, so I explained.

"Edwards was an astrogator who went off the beam in a double sense. The last they saw of his ship was when it passed

Mercury heading towards the Sun. The captain radioed that he'd been knocked out, the atom-jack killed, and that Edwards was steering them all to glory. He did, too."

"And is that what happened to you?" The kid was impatient to find out just why I was a hero.

"No. What happened to Edwards is just one of the things which can happen. With me it was different. It was during the last trip. We'd landed on Mars and I'd taken time out to do some wandering around. Take-off was on schedule and the trip was normal until about twenty days from Earth." I stared down at my glass and wished that I hadn't drunk so much of the kid's whisky. "Then it happened."

"Yes?"

"One of those emergencies I was talking about." I tried not to sound bitter. "To understand why they did it you've got to remember that there's still a lot we don't know about the planets. We don't carry doctors, either. Not that it would have made any difference; there are some things you just can't take a chance on. One thing every spaceman has drilled into him is the possibility that one day, somehow, someone might catch the one thing capable of starting a first class epidemic."

"Disease," said the kid, and nodded.

"That's right," I said, and suddenly it was all around me again. I gasped and my mouth tasted like a sewer. I itched. I stank. I hated myself and everyone around me. I wanted to vomit and almost did.

"Steady," said Sam, and poured something from an assortment of bottles. "Here."

The stuff tasted awful and smelt worse, but it settled my stomach. I even managed a weak grin as I looked at Molly. Yendle had done better than he knew.

"What happened?" said the kid. "What happened?"

"I fell sick," I said slowly. "I started a fever and broke out into spots. There were other symptoms, none of them nice, and immediately I was a number one problem.

Remember, I'd eaten the same food, drank the same water, used the same air as the others. The only thing I'd done differently was to wander around on Mars and, for all they knew, I could have picked up some bug or other which could wipe us all out. Gresholm, my captain, was fully entitled to dump me outside. In fact, it was his duty to do it."

"But he didn't," said the kid, and his eyes looked like twin stars.

"No, he didn't. Instead, I suggested the only logical thing to do. In order to safeguard the others I had to remain in quarantine, and the only way to do that was to wear a spacesuit for the remainder of the trip. In a suit I would be sealed off from all outside contact. The air-renewers could handle the load providing I didn't move around. We drilled a couple of holes in the faceplate and fitted tubes for water and soup from other sealed containers. Then I got on my bunk and sweated it out."

I gagged as I remembered it.

The kid looked disappointed. "Is that all?"

"All?" Sam leaned further across the bar. "You know what a spacesuit looks like? It's zippered to a skin-tight fit and the air is on a closed-cycle feed-back system. It's re-oxygenated, sure, but that's all. Tom couldn't scratch or wriggle, or do anything but breathe and wait for the trip to finish."

"But it couldn't have been serious," complained the kid. "He's still alive, isn't he? So it wasn't a dangerous disease after all."

"That was the worst part," I said tightly. "All that trouble for nothing. Just a touch of shingles. Nothing to it."

"Then?" The kid looked baffled, but still didn't want to be rude. "You called him a hero. How . . .?"

"Think about it, son," I said gently. "Eighteen days zippered up in a sealed spacesuit. Just think about it."

I couldn't bear to.



*No one likes censorship but
sometimes it is necessary. And
sometimes it can be very useful.*

YOU CAN'T SAY THAT

by

CLEVE CARTMILL

ON A HIGH POLICY LEVEL, THERE WAS COMMUNICATION between governments. Derisive sounds tinged with desperation.

On lower levels, too, there was communication. A man in Peoria cabled a cousin somewhere in Eurasia that some bureau or other had refused the visa request. A loyal citizen of New Chicago sent, on the fifth of every month, a limp little heap of scurrilous prose to the Dictator of the Southern Democracies. A businessman from Africa insisted he'd been foxed on the trade of a boatload of plantain for six Alaskan ermines to be used for breeding purposes, for he discovered, upon arrival (or so he said) that all six were male. And Alaska answered, of course, that they had been swindled because he'd picked the plantain ripe.

All was not, nor could it be, calculating silence. But the internal snarls and battlings were muffled. There were bureaux to see to that. Nothing went from one bloc to another that might give aid and comfort to a potential enemy.

Every so often some good soul stood up and pointed to the

harvest of stagnation to come. His logic was always lucid. Everyone agreed in principle; or, that is to say, they conspired to pay no attention to him.

True, what he said would happen, would, in the long run, happen. But, as Lord Keynes remarked some five hundred years before, "In the long run, we shall all be dead." With the happy heritage of a thousand years spent in plundering the planet's various resources, physical, spiritual, and human, the statesmen could plead, as always, precedent and expediency.

Let the next generation, if any, find the solution.

The Bureau of International Censorship for the North American Land Mass had numerous departments in both its Eastern and Western Divisions. The most spastic department in the Western Division was the one controlling cables to and from, among other places, the Chinese Capital of Eurasia, the best current candidate for potential enemy.

Wayne Chambers was in charge of it. Had been, in fact, for the last two years, which spoke well for his nervous system.

The Monday morning when relations with Eurasia were at one of their periodic crests, he came to work feeling better than most of his office staff looked. He had spent the weekend in the sun, and he flashed smug smiles at the glum operators of coders, decoders, scramblers and typewriters. The majority returned pained smiles or pretended not to notice him.

There were more messages on his desk than usual. And on the top of the stack was the cryptic note: "Call FA about Lamb."

"Lamb?" he mused. It meant nothing to him. So he flipped on the intercom. "Fred? This is Wayne. What's this about Lamb?"

"Oh, morning, Wayne. Last Tuesday your office received a cable for transmission signed Lamb. I phoned about fifteen minutes ago, and your secretary checked it for me. Looks like you'd rejected it. I'd like to know your reason."

"I don't remember it offhand. I'll call you back after I look at it, Fred."

"That'll be fine."

YOU CAN'T SAY THAT

Wayne tipped a switch for his secretary. "Shirley, you want to bring that Lamb thing in here?"

"Right away."

When she came in, he noticed that she did not have the Monday morning look. It was more the Saturday night look of a girl waiting for her date to arrive. Last year he had had a fast affair with her, which had been pleasant. And now he was able to look at her with almost paternal fondness.

"Thanks," he said, taking the form message. "That does it, kid."

He called Fred again. "I place this Lamb, now. It's not in clear text. I must have sent a routine reject notice out on it."

"Would you mind bringing it over to my office, Wayne?"

"Hell, Fred. I'm snowed under here."

"It won't take long."

Wayne looked at the work on his desk. "If you say so. I'll be right over, then."

He left the office and stepped onto the glidewalk that carried him along gently curved corridors and up one level to his chief's office. It said Mr. Samson on the door, but everyone called Mr. Samson either Fred or FA. This was because Mr. Samson was bald.

In the office, Wayne was introduced to an obviously infuriated gentleman with grey hair and pallid cheeks.

"How do you do, Doctor Weston?" Wayne acknowledged.

"Did you ever play chess, young man?" Dr. Weston said bitterly.

"I always thought it was a rather dull game," Wayne said. He knew, now, that this was another V.I.P. They didn't like to be edited or rejected according to the rules governing lesser breeds.

"Yes," Dr. Weston said, after a circumspect glance. "I can well believe that. And did you notice to whom the cable was addressed?"

"To a gentleman named Dr. Juan Quirito, in Santiago," Wayne said.

"Dr. Quirito," Dr. Weston said, almost dancing in fury now, "is one of the world's foremost chess masters. He

has won the Southern Democracies Tournament for three straight seasons."

Wayne realized that this was probably quite true.

"Mr. Lamb, myself, and several of the other outstanding chess experts on the planet are initiating a programme of exchanging chess problems for amusement and relaxation. And you have taken it upon yourself, young man, to sabotage what may be the first step in improving international relations since Censorship."

"This is a chess problem I take it?" Wayne said. He looked at the message. W: K-KB5; Q-QB3; R-QB8; Kt-K5; P-K3. B: K-Q4; Q-K7; P-Q3. W-M: 2. "Well, I didn't turn it over to the Chamber. I just sent out a request to the sender for clear text, but I didn't get an answer. That's the usual procedure."

"Let me see it," Dr. Weston said. "Here. Now. Look here. This message indicates the position of the pieces on the board. What can be plainer than that? It's perfectly clear. The King on the King's Bishop's fifth square; Queen on Queen's Bishop three; Rook, Queen's Bishop . . ."

"Ah, yes, I see," Wayne said somewhat dryly. "But I'm afraid I can't visualize a board like you do . . . If I may have the message, please? Thanks. Because I wouldn't know a Queen's Bishop from a landing field."

Dr. Weston puffed his pallid cheeks.

"Well," Fred said, from behind his streamlined desk, "Wayne, I guess you owe Dr. Weston, here, an apology. We'll be glad to send the problem right out, Dr. Weston."

"I'll have to check it with someone who knows chess," Wayne said. "I'm responsible for all messages that go through my department. But it won't take me very long to check it."

Dr. Weston said, gritting his teeth: "I'm one of the world's foremost authorities . . ."

"What Wayne meant, Dr. Weston: check with someone in his department. You see . . ."

Wayne looked at the doctor. He was boiling merrily.

"Well," Wayne said, "I'll leave you now, Fred. Sorry about the mix-up, doctor."

No one in Wayne's department admitted to playing chess, but Shirley suggested Larry, the Thinker, who worked in Foreign Publications.

Wayne, who made it a point to know a great number of people, knew the Thinker more or less well. So, after lunch, he rode the glidewalk over to the Kempton Memorial Building where the Thinker worked. At the door to the building, his body and badge were oscillographed and the results compared to a file of cross-presses from original records. Inside, he spoke a series of passwords into a series of armed microphones.

Although, as head of a department, he was entitled to restricted entry into the Kempton Memorial Building, he went there no more frequently than necessary. There was a special section of the building devoted to God-knew-what, and eyes of atomic guns waited ready to vapourize any unauthorized personnel who tried to enter it.

He found the Thinker on the fourth floor, alone in a cubby-hole, surrounded by heaps of magazines and other trivia.

The Thinker sat with his broad and graceful hands intermeshed, his head canted to the left. Wayne hated to wake him up.

"Larry?"

"Eh? Eh? Oh. 'Lo, Wayne, buddy-buddy." The Thinker bent forward and said in a startlingly deep voice: "What can I do for you, buddy-buddy?"

"Do you play chess, Larry?"

"A little."

Wayne handed the message form across a pile of Journals of Chinese Agriculture. "Is this thing okay?"

The Thinker scratched his left eyebrow, reading. "Well . . . It calls for White mating in two. This W-M: 2, here at the end. But it looks to me like White can mate in one: either Queen to Bishop six or Queen to Queen four. Which makes it a lousy problem: you're supposed to have only one possible answer."

"Would most chess players be able to figure that out, Larry?"

"If they'd played more than three games."

"It's not something to puzzle an expert, then?"

"Checker expert, maybe. Possibly throw a Canasta man. But chess player, no."

"Thanks, Larry . . . I may be calling on you again."

"Any time, buddy-buddy."

Wayne went back to his office. He closed his eyes and blanked out the noise of busy machines.

So far, he had followed through a routine check. It was what his job called for. It wasn't routine any more. Not if the Thinker was right. For an expert wouldn't take one *more* move to mate than a neophyte. Unless, of course, the problem was not to find the simple solution. Damn it, he thought, I wish I knew more about chess. If Dr. Weston is a V.I.P., and he obviously is, it would be a fine kettle of fish to delay transmission of a message he's interested in on such skimpy evidence.

He punched for Shirley. "Send this out," he said, giving her the message form. "No, wait. Make this—here. Let me have it again." He took it back and drew a line through the W-M:2 and wrote above it, W-M: 1.

If it was a code key, they'd have fun with it now.

And then he tried to put it out of his mind, but it continued to annoy him.

Half an hour later he spoke to Shirley again. "Was that Lamb thing sent?"

"I don't know. I'll see."

"Don't file the form when it is. I want it back."

A few minutes later, Shirley came in. "Here 'tis. It's been processed."

"Thanks, Shirley."

He took it. It was getting a bit dog-eared. In sudden decision, he sight-beamed Santa Fe.

While he was waiting for his party, he tried to imagine why one Mr. Lamb didn't protest the reject on the cable—why, instead, one Dr. Weston, V.I.P., did.

"Hi, Pete, glad to see you again," he said into the image screen when he got his man.

Pete's twinkle-eyed face bobbed greeting. "It's been—oh, hell, I guess three months, eh? You look sunburned."

"Just a tan."

"You want something?"

Wayne looked at the message form again. "Here's the job. There's a man called Lamb in a town called Lincoln; ever hear of the town?"

"They once had an outlaw named Billy the Kid in jail there. It keeps the town on the map."

"Could one of your boys check on this Lamb? I hate like hell to ask you, Pete, but it's not the sort of thing I'd want to stick my neck out on by taking it through all sorts of channels."

"I'm kinda shorthanded."

"See what you can do, though, will you? I'd appreciate it. It's to clear my conscience, in a way."

"Husband?"

"No. Fortunately, no. Chess expert, I think."

"Chess expert, did you say?" Pete said. "Well, I'll see what I can do. In case I get it, how you want it?"

"Nonstop, diplomatic, sealed tube. To my apartment. Can do?"

"Right, Wayne. Hope to be up your way in a bit. See you then. I've got to click off. There's a tongue-flowered orchid growers' association or something clamouring at my door."

"Thanks, Pete. See you."

He turned once more to the accreting business on the desk.

Before he was finished with it, the quitting time chime sounded softly. He decided not to work late. He put a pile of messages into Operations pneumatic tube, another pile into Filing, and the remainder sat accusingly in the centre of his desk.

He went to the roof, entered a low-level airbus and paid his fare to the library.

Once there, his youth and good looks brought a great deal of fussing and running around from a woman whose youth and good looks had existed, if ever, far in the past. He presently found himself in a viewing-reading cubicle with a pile of books and a box of microfilm.

He put a chess game in the viewer, but he could make no sense out of the players' slow, deliberate moves. He looked over the books and selected an old one by a man named Capablanca.

He tried to tell himself that he'd been intending to learn to play chess for years.

He checked out the book and decided to walk home. Night had fallen, and a stroll in the park, which would take him to within a few hundred yards of his apartment house, would take the desk fatigue out of his body.

He liked the park; the rustling leaves, the lush night odours, the muted sounds of civilization—these were both restful and stimulating.

The path was pale from the far-off reflections of commercial light. Shrubs and plants to either side of the path were clumps of formless black.

The man who stopped him said: "Got a light?"

"Yeah, just a second."

When Wayne brought out his cigarette lighter, the man studied his face closely in the soft glare. The man's pupils were abnormally expanded, and Wayne frowned, trying to connect that with some significant fact.

"Whatcha got there?"

"A book on chess," Wayne said before he realized it was none of the man's business.

"Your name's Chambers, maybe?"

"Hey! What is this!"

"It's a little late to holler copper," said the man, hitting him in the mouth.

He went down. And two shadow figures joined his assailant. The three of them proceeded to kick and stomp his body. Lances of pain shot through injured muscles.

He tried to roll away, and they kicked him scientifically. They seemed to be enjoying themselves, for one of them giggled. Wayne lashed out with his feet, hit empty air. A foot caught him in the chest, and he concentrated on breathing, which was suddenly difficult.

One of the men obligingly kicked him between the eyes, and he forgot about trying to breathe.

Sensibly, he screamed, and the sound was rewarded by hurrying footsteps.

Each of the three assailants took a parting shot and left. Someone was standing over him asking foolish questions. He said: "Go away. I'm sick."

The voice said: "I'll go for a doctor."

Footsteps went away.

Wayne shook his head and got to his knees. He ran exploring hands over himself, but aside from being a solid mass of pain, aside from a broken rib or two, there seemed to be no vital damage.

He licked puffy lips and tasted salty blood.

Automatically he checked his personal possessions. He hadn't been robbed. He got to his feet groaning.

And he realized the Capablanca was gone.

He swore softly and viciously. Not because of the loss, though the book being old, would probably cost many times the amount of cash he had in his wallet; but at the idiocy of giving a man a brutal beating just in order to steal his book.

He shook his head to rid it of any annoying muzziness.

Then he remembered the first man's eyes. Large pupils. The fact finally clicked: Dope. That was it.

Some of the boys out for a night of innocent merriment. They had probably taken the book on a mad impulse. The motive for the beating, then, was merely exuberance: they had been feeling their oats. If someone hadn't come along, doubtless, they would have stomped him to death. But being none too brave under drugs, they had fled.

He was hurt and sore; he didn't want to think; all he wanted was a relaxing bath and medication for his wounds. He limped along the path to the street, along the street to his apartment. It hurt to breathe.

Inside the apartment, he studied his face in the mirror. It was lumpy and swollen and streaked with blood. Both eyes were black. He stripped and examined his body and found blackened bruised areas from his toes to his shoulders.

He soaked in hot water for an hour, and much of the ache drained out of his muscles. Infra-red baking relieved him still more, and after applying ointments, he felt pretty good. Except that it still hurt to breathe, and his mirror still said he looked like he'd gone three rounds with a pile driver.

He got into a robe and house boots. What he needed was a drink. He went to his liquor cabinet and was appalled at the inroads the last party had made on it. All he had left was about eight ounces of gin and two of vermouth. But that was just right for a big dry martini. So he stirred them together.

The first glass relaxed him.

And he started to get angry. What the hell kind of a police department let innocent citizens get beat up in a public park? He reached across to flip on the commercial screen and lodge a complaint.

Then it occurred to him that the boys in the park had known his name.

He stopped his hand in mid air.

Someone had hired three dope-happy thugs to kill him.

It was an unpleasant thought, and he poured himself another drink. They had been waiting not for just anyone, but for Wayne Chambers.

Then he did call the police.

"An attempt was made on my life this evening," he told them. He recounted the details, and they informed him to sit tight. A man would be right over.

Wayne did not go to work the next day.

The police had provided him with a bodyguard (no department head in the Censorship Bureau was going to be killed if they could help it) and their surgeon, who had looked him over and bandaged his chest tightly with yards of gauze, recommended a day in bed.

The next day, Wednesday, when he went to work, his chest still ached, and he felt acutely embarrassed because a plain-clothes man tagged behind him through the noisy office.

As yet he had not thought of any reason for the attempt on his life; and like the police, he was curious, but unlike the police, a little frightened.

He was scarcely settled at his desk when Shirley came in with an armload of work, and for the next two hours he lost himself in it.

Then Fred called, and Wayne knew that he was concerned. A few minutes later, in Fred's office, Wayne found out why.

Wayne was no longer head of the Department of Cables, Western Division, Bureau of Censorship.

The order had come through only a few minutes before. From the main Eastern office. And there was nothing Fred could do about it but send back a strongly worded protest.

The reason, ostensibly, was a matter of very little importance that had occurred several months previously. But Wayne knew, and Fred knew, that it was only an excuse. If they had wanted his job over that, they would have had it long ago. It was because of something more recent; pressure from somewhere, conceivably from some irate V.I.P. V.I.P.'s were one of the occupational hazards.

Fred brought out a bottle from the desk, and sitting in his office, the two of them got slightly crocked and maudlin. "Damned filthy shame," Fred said every so often, and Wayne echoed the words. Until they knew, suddenly, that nothing more could be said, so they shook hands and Wayne went back and cleaned out his desk and bid Shirley a drunken and overly lighthearted good-bye. He noticed his bodyguard was already gone; doubtless the man had phoned his office when he heard the news, and they had decided, presumably, that the life of an ex-department head was of little consequence.

Outside, he stood on a pedestrian island and unconsciously read signs on the glidewalk. He picked one advertising sea foods and stepped onto it.

Afterward, he went home.

He slept for three hours, and when he awoke he sat on the bed with his head in his hands and asked himself: What does a man do without a job, without any prospect of a job, but with a hang-over and a growing sense of outrage?

"I have been most foully handled," he said aloud. And shook his head savagely. His mouth was dehydrated.

He got up and stretched and was still stiff and sore. He drank two glasses of water from the tap. He decided on a drink of something stronger, but the cabinet was empty. It was too much trouble to go out for a bottle. He didn't feel up to it.

He noticed that while he slept, or perhaps sometime in the morning, a sealed tube had fallen into the box from his pneumatic. He walked across, picked it up, tore it open.

It was from Santa Fe. From Pete. Information on Lamb, and he started to throw it in the incinerator because it was no longer any of his business. But, out of curiosity, he glanced at it first.

"Wayne, you sunburned so and so: Got a man down to Lincoln after all. This Lamb's been there a couple of years. Couldn't find out where he came from, before. No wife, no girl friends, no vices—excuse the redundancy—teetotaller. Plays chess like you said. Must have his money buried somewhere, because he's got it and it's not in the bank and he doesn't work. That's the size of it. Hope it helps. Give Shirley the best. Pete."

Wayne frowned. There was something to think about here, if he only felt like thinking. He went to his clothes hamper and brought out the bloody suit. The message form from Lamb was still there. He put it on the dresser and went about the business of fixing supper.

As pleasant odours came from the stove, he tried to get his thoughts in order. A fast cup of coffee helped.

It seemed obvious that someone didn't like the way he had run his department. Because of something he'd done recently.

So they hired three snowbirds to knock him off. That would be the easy and obvious way to get him out of the department. Failing in the attempt, they had exerted themselves a bit more and got his job. There were a thousand ways they could have done that. Influence to bear on any of a hundred officials . . . Fred's protest would be taken up, and eventually a hearing would be held, and he would find out the charges against him. But hell, Wayne thought, they can make a case against anyone who has to make as many decisions as I made. The real reason need never come out.

When supper was on the table he was good and mad.

He was beginning to suspect a chess problem could proliferate problems; one of them, at least, a highly personal one, involving, among other things, room, board, upkeep, and self-respect.

He didn't like to be had. He didn't like people trying to kill him. He didn't like being fired.

After he ate, he consulted the various directories in his apartment. He ran down the lists of Westons. He found one, Aloysius D., with a doctor's degree of sorts: veterinarian. But it didn't sound like his man.

He screened Fred at his home. Fred, when he answered, was somewhat red-eyed.

Fred had information on Weston. Laurence L. A big cheese. Executive v.p. of this; recording secretary of that; politically active. Fred put it this way: "Big enough to get your job, yes. And mine to boot." Wayne copied down Dr. Weston's home address, thanked Fred, and signed off.

Then he sat thinking. If Weston was a big shot: why was he playing for peanuts—and it would be peanuts if this was a conventional ring engaged in bootlegging information to the Southern Democracies. What was Weston's pitch? What did he expect to get out of it? Why should he be interested enough to get Wayne fired?

And what, in the first place, was wrong with the chess problem that would make someone try to kill him because he held up transmission of it and then tried to investigate?

He reached over and flicked the screen on once more. This time he called a friend of his in the Cryptoanalysis Department, the Black Chamber.

"George: I've got one for you."

"Shoot."

He explained the chess problem and, getting Lamb's message form, read off the text. "Can you look into it?"

"Read it again. I'll copy it down."

Having done that, George signed off, and fifteen minutes later he called back.

"It's a legitimate problem, Wayne. Perhaps the order of

pieces on the board represents a code: it's possible, but I don't have nearly enough characters to tell. If it is a code, it's probably a reference code of some sort, judging from its length. It would probably be a hell of a job to crack it. I can take it down and have some of the boys try, if you'll get me an authorization."

Wayne smiled wanly. "Noooo. I just wanted an opinion . . . I couldn't very well get an authorization. I don't work there any more. I stepped on one too many sets of toes."

"I'm sorry to hear that, Wayne."

"I was, too. It makes a man mad to be discriminated against for conscientiousness. I'll see you, George. Thanks."

More fact: it might be a code. If so, a good one. Since he had been reasonably certain it was, he was glad but not surprised to have his view substantiated. That was that. He wasn't interested in cracking it. The fact that it might be a code was the important thing. Now the problem was to find out who the people were behind it. And for whom they were working.

He screened Shirley. When she saw his face, she said: "I feel like hell about you being fired. What rotten luck. It's rough breaking in a new boss, and Johnson's got the department now, and you know how he is." Her eyes were serious, and her fingernails, coral-tipped, brushed at a sun-jewelled earring.

"Shirley, would you do something for me?"

"You know I would, Wayne."

"Listen, kid. Can you find out if there's been any more of those chess problems?"

"There was one yesterday. I remember, because you were home, and Johnson took it in to FA. FA said send it out, I think."

"Would you find out whom it was from and whom it was for? The same thing if any more come through?"

"Sure, Wayne."

"And would you send a request to the Eastern branch for information on chess problems they've transmitted? And then, just so I can be sure that the one I saw wasn't a freak,

will you take whatever texts you can find over to the Thinker—no, you'll have to phone them to him; you can't get in Kempton—and have him check the move requirements?"

"All right. And Wayne. For old time's sake, we might go dancing Saturday. It might be fun."

"That's a good idea, Shirley. But you'll phone me before?"

"As soon as I get anything. I'm going to miss you at work."

"Thanks, kid. Thanks a lot."

Before the next morning was halfway into the Heretofore, Wayne was a bundle of nervous energy. He paced the apartment restlessly, tried to read, tried watching commercial television. But he couldn't concentrate. Enforced idleness was terrifyingly different than vacation, and he missed the job acutely.

Two years ago he would have said he didn't give a damn about the job; if he held it, all right; if he lost it, all right. Three years ago he would have laughed ironically and said: "I work thirty hours a week paring the heart out of civilization." And four years ago he would have called a worker in Censorship an intellectual prostitute: a man of easily purchased principles.

But somehow in the last four years he had changed. It was a shift in viewpoint, and he realized, wryly, that some of his college friends would say he had sold out in return for a good job. But that would be superficial. The job had changed him, of course, but it had been change, not compromise.

Probably it was due in large measure to the fact that he now understood the men behind both internal and external Censorship. Honest men, doing only what seemed to them necessary. Our wheat production statistics would inflame the Asian masses to insane jealousy; accordingly, they must not know. The location of our underground steel factories, if known, would be pinpointed on foreign maps as high priority targets—for the if and when. And internally, people cannot incite citizens to sabotage and treason.

True, Censorship drove people farther apart, formed false

boundaries, made false hates. It grew from fear, it spawned fear. And from fear, antithought. If you start burning false ideas to save yourself from fear of them, you won't know when to stop until the human mind is ashes. There are better ways. Censorship chokes and throttles and defeats its purpose. But the solution is not to remove the symptom but to cure the disease.

There was an answer, somewhere, of how to get at the causes: selfishness, greed, suspicion, fear, intolerance. People did not have to be set one upon the other. There was no law to that effect. They could work together. And if they didn't, they would manage to eliminate the race entirely—not today, perhaps not tomorrow, but pretty soon. Because the doom was not immediate, it was easy to accept solutions that weren't solutions, solutions that brought nearer and nearer the day when it would be too late for solutions.

When the disease was cured, when the cause was removed, the symptom, the effect, would vanish. Until then, Censorship. Once the cure was effected, there would be no need for it, and it would vanish quite away.

Wayne looked at the reproduction of *Descent from the Cross* hanging above the artificial fireplace; he grinned weakly.

For a moment, his mind had engaged a problem; but now a statement had been given, and he was restless again.

He tried to work at the problem of the chess code again. But his thoughts were bleak. And he wondered suddenly why he should care at all. Was it worth the trouble? What difference did it make? The world was going to hell in a wheelbarrow, so why worry? Did it make any difference if W-M:2 meant the latitude of North America's atom bomb cache?

He decided it did; partly, it was an emotional choice, but partly, too, it was a decision between alternatives. The fact that he was alive made him a player; and as long as he was going to play, he had to choose sides. One side was always a little better. One side offered a little hope. And, too, it would help to postpone the inevitable. That was the whole point.

Put it off as long as possible, don't give the other side the final balance of power. Wait till tomorrow.

Damn, he thought.

He fixed a tasteless meal and ate it.

"I'll go off my nut sitting around here," he thought.

A little after one o'clock Shirley screened him.

After a bit of office chatter, she got around to the point. The chess problem day before yesterday had been from one William Langley to someone in Buenos Aires. And this morning Lamb had received a chess problem from Eurasia. The Thinker had pronounced the requirement on one problem two moves long; he thought the requirement on the other was one move short, but he'd have to think about it some more before he could be sure.

Wayne thanked her and blanked out the screen.

He began to feel excitement inside of him.

Two hours later Shirley screened him again.

Three problems had been sent from the East. From one man, Bert Weatherton. One to the West Europe bloc; two to the African bloc. And the Thinker would almost bet the requirement on the problem to Lamb was one move short.

Wayne thought about the information, and then he screened the library. A little cajolery got the librarian to check for him. Bert Weatherton was listed somewhere in a new edition of something as a chess expert. He had come upon the scene suddenly, for there were no previous listings on him. William Langley was in the same category. And Lamb had come to Lincoln only two years ago, Wayne remembered, according to Pete's letter.

There was a common pattern, and part of it, at least, made sense. Newly-arrived men smuggling information into foreign blocs. But there was, as yet, no indication of which one bloc was employing them; or why they should report, apparently, among themselves instead of to a central agency in the guilty bloc. If Eurasia were behind it, why was Lamb in correspondence with the Southern Democracies: or vice versa?

And of more immediate interest, what was Dr. Weston's connection with the operations? He didn't seem to fit.

Wayne got Dr. Weston's address. An interview was in order. But halfway to the door he stopped. He had discounted any more attempts on his life, since his firing would be assumed to terminate automatically his investigation into the chess code. But when he persisted, perhaps they would take another crack at him. For a moment he wanted to screen Fred and toss the whole mess in his lap; except he realized, almost instantly, that that course would jeopardize Fred's job and perhaps his life as well. And it was too soon to call in the police.

Wayne gritted his teeth. It was his baby.

Dr. Weston lived in the suburbs and had a butler. The butler was short and squat and red-faced and pleasant enough.

He said: "I'll announce you, sir, if you'll just come in."

The butler saw him seated in the living room off the hall, or it might have been a waiting room, especially installed for callers to cool their heels in. If that were its function, it was a cut above dentists' offices; there were no ancient issues of periodicals in evidence.

Wayne lit a cigarette and settled down.

A few minutes later the butler came back.

"If you'll tell me your business, sir?"

So Wayne said: "It's about Lamb's chess problem. Just tell him that."

"Very well. Won't you fix yourself a drink, sir? There's the material in that cabinet."

Wayne was surprised. He had not imagined Dr. Weston to be either a likeable or hospitable man. He looked around the room again. It was richly furnished, and Wayne realized that Dr. Weston probably had few callers. Not because he forbade them at the door; it would be unnecessary to. The imposing front, the vast sweep of lawn, would discourage anyone who did not have a valid reason. Petitioners would phone for appointments and be turned down then and there.

He walked to the liquor cabinet and wet three fingers. It was excellent bourbon.

The butler returned. "Dr. Weston wonders if you'd mind

waiting for a few minutes? Unless you're pressed for time, of course, in which event he will put aside his business and see you immediately."

"I'll wait," Wayne said. Again his idea of the man was changing.

And fifteen minutes later Dr. Weston came into the living room, or whatever it was, and extended his hand sociably.

"Oh, yes! I remember you, now. Bill said it was about a chess problem, but I didn't place the name until I saw the face. You're from Censorship, of course."

Wayne took the hand.

"Now what can I do for you, Mr.—ah—ah—oh, yes, Chambers, of course, Mr. Chambers?"

"I came about the chess problem from Lamb."

"Well, let's sit down and you can tell me all about it."

Wayne felt his face getting red. He sat down. "I'm afraid I wasn't too polite at our first meeting."

Dr. Weston smiled. "Yes, that's so. But I'm afraid I wasn't either, so that leaves us even. Perhaps you'll forgive me? Several days of little grievances building up, and then this Lamb matter, and I was rather out of patience. I was thinking about stupid bureaucracy and unnecessary censorship . . . But then, after it was all over, I realized my anger was uncalled for. After all, you had a job to do. You did it. You really deserve my apologies . . . Actually, you know, our interchange of chess problems won't start officially until next month. I'm rather glad Mr. Lamb was premature, for none of us had thought to notify Censorship. That situation has been corrected. I expect you'll get a regulation covering our group in a few days."

Wayne bent forward. If Dr. Weston were putting on an act, it was a beautiful one, indeed. Somehow he felt the man was sincere.

"I was discharged, or did you know?"

Dr. Weston seemed taken aback. "Discharged? No, I didn't know that, of course not, no. Surely it wasn't over that chess problem? Do you think I would . . . ? Please don't think I had anything to do with it, Mr. Chambers. I assure

you. I protested your refusal to transmit the problem. Mr. Lamb had asked me to. He seemed very concerned, and since I was interested in any step to further internationalism, naturally, I complied. But it went no further."

"Dr. Weston, will you look at this chess problem?" He handed the form across to him.

After a moment the doctor said, puzzled: "There's nothing wrong with it."

"Isn't it one move long on the solution?"

"Yes, but someone's changed that. The White-Mate: Two has been corrected to White-Mate: One."

"I changed it myself. Lamb wrote the White-Mate: Two."

Dr. Weston scratched his pallid cheek. "Yes . . . ?" He shrugged. "Well, a typographical error, undoubtedly." He paused a moment. "But come to think of it, this is an oddly easy problem to send to a chess expert, don't you think? No, you don't play chess, I remember."

Wayne knew, now, that the Doctor wasn't trying to conceal anything. He had been an innocent instrument through which Lamb had worked.

"But, of course," Dr. Weston was saying, "there's probably a simple explanation of all this. I'll tell you what. Why don't I screen Mr. Lamb right now? I'm sure he can clear it up, and you'll see the chess problem has nothing to do . . ."

Wayne checked a sharp protest. Most certainly he did not want the doctor to call Lamb. Not now, not since the doctor had proved himself to be no source of direct information.

". . . With you being fired," Dr. Weston concluded.

"No, don't bother about calling him," Wayne said.

"Well, surely, if you have any suspicion, it's based on more than this?"

Wayne hesitated. "The day you came to Fred's—Mr. Samson's—office—that night, rather, I was followed from work and savagely beaten."

"Shameful! Shameful! The police . . . ?"

"They couldn't do much after it was all over. Well, two

days later, yesterday, I was fired. On orders from the East. It would take a man of some influence to get that done."

"You flatter me," Dr. Weston said, catching the implication easily. "But I've assured you, I'm not the sort at all."

"I know that, now," Wayne said, "after talking to you. But that still leaves Lamb." He was in a difficult position. He wanted more information. To get it, he would have to substantiate his charge against Lamb more fully, and, at the same time, not mention the fact that all the other chess problems transmitted bore incorrect requirements for solution. Because if he told Dr. Weston that, he was afraid the doctor would call Lamb immediately for an explanation. "One thing more," he said. "I was beaten just after I'd checked a book on chess out of the library, and the book was stolen."

Dr. Weston's eyes narrowed. "I hardly see a connection. If these men were following you, how would they know you were going to check out a book just so they could steal it? I don't see the logic. It would seem to show the two incidents couldn't be connected."

That was the very point that had annoyed Wayne until he realized that the thugs had been hopped up and that probably one of them had taken the book just for the hell of it. Dr. Weston was no idiot. It would be necessary to tell him about the other messages, unless he would give information without requiring proof. "I'm afraid I never thought of that," he said.

"Young man, I don't think you're being logical enough to be able to play chess; perhaps it's just as well you never learned."

Wayne smiled thinly. "Perhaps you're right, doctor . . . I wonder, though, would you object to telling me a little something about Lamb? Just to satisfy my curiosity?"

For a moment the doctor seemed ready to refuse. Then he said: "No. I have no objection. He's a chess friend. He seems harmless to me. He *is* a lamb. Bleats at a harsh word. Quite timid. That's why it's so absurd, you suspecting him of costing you your job. I'm afraid I can't help you much. I

scarcely know him, aside from what I told you. But he's not your man."

Wayne saw the interview wasn't going to produce very much from now on. "Do you think he has enough influence to get me fired?"

"I think you're on the wrong track, Mr. Chambers. About your question. I really couldn't answer. It's not inconceivable, of course."

Wayne stood up. "I'm sorry to have intruded like this. You've been most considerate. I appreciate it."

"Come again," Dr. Weston said. "Come on a social call, won't you, when you're settled?" It was the thing Wayne had expected. The polite formula. Beneath the words, Wayne knew that he had succeeded in making Dr. Weston angry a second time.

"Well, thank you, doctor."

Outside he breathed a tired sigh. Dr. Weston was explained. And there was only one man left whose location he knew. Lamb. He was glad Dr. Weston hadn't insisted on a call to him. If Lamb had tried to kill Wayne once, Wayne didn't want Lamb alert and perhaps ready to try again.

Wayne wanted to surprise him.

Sunlight flashed clean and bright on the windows of the stratojet. Wayne watched the lazy world unroll below.

He was glad, now, that he had not called in the police before talking to Dr. Weston. It would have proved embarrassing. And probably the investigation would have ended there.

Now, racing toward Lamb, he felt confident. Dr. Weston had been a question mark. Lamb was almost a certainty. He was heartened by the doctor's description of the man. Wayne would be more than a match for him physically, if it should come to that. And since Lamb wasn't expecting him, there would be no danger from hired killers. It was safe to go it alone.

He got off at Santa Fe. He decided not to look up Pete until he was on his way back.

He hired an aircab, and it took more money than he could afford. But he wasn't worried about money. He'd have his job again, when the interview with Lamb proved successful.

As in the case of Dr. Weston, he wasn't sure yet what he was going to say. It would depend on the circumstances. Wait and see, and play by ear.

Once more he reviewed the case in his mind. A group of men. All sending secret information in the form of chess problems. All men of unknown antecedents, probably no more than two or three years in the country. Practically a classic case.

There was only one point he did not understand: why they corresponded, apparently, with all blocs instead of just the one they were working for. It didn't quite fit. For all the movements, countermovements, underground movements, international movements, that he had ever heard of, none lacked a sponsor. Each was under the tutelage of its bloc. The Southern Democracies—let's see, theirs was called Unity In Peace; the Dictator was the president of it. And so it went. The supernational angle he didn't get. But he would find out shortly.

The air in Lincoln was hot and dry. Wayne hired a ground car to take him to the address on the message form.

It was a small house. With a small yard. There was a half-hearted flower garden to the left of the walk.

Wayne knocked twice, and then Lamb came to the door. He was, indeed, a mouse of a man, with wrinkled, dry, and artificial-looking skin.

"May I come in?"

"I—I—ah—ah . . ."

Wayne practically forced his way into the front room.

"Your name's Lamb?" he said.

Lamb nodded his skinny neck.

Wayne had an insane desire to say: "Too late to holler copper," but instead he said: "My name is Wayne Chambers. I'm from the Western Division of the Censorship Bureau."

There was sudden fear in the little man's eyes, and Wayne

acted on instinct, pressing his initial advantage. He tried to make his voice sound tough and brutal.

"I know all about you," he said. "The game's over."

The little man's eyes darted wildly about the room, and then his hand dipped to the pocket of his jacket. His lips twisted into a snarl.

The hand came out of the pocket.

Wayne was terrified, and he stepped forward, throwing all of his weight into the punch. It landed loud and solidly, and the object in Lamb's hand skittered across the room. Wayne saw it out of the corner of his eye.

It was not a gun.

It looked more like a door knob. Certainly no weapon.

Lamb crumpled.

Wayne was shaking. The man hadn't, as Wayne had thought, tried to draw a gun. It may have been merely a nervous, surprised movement.

Wayne heard the breath hiss out of his lungs.

He was wrong. He had frightened an innocent man. And then assaulted him. His former certainty vanished. He saw all kinds of logical explanations for the chess problems.

Suppose Lamb was dead?

He imagined, in a sickening flash, the sort of testimony Dr. Weston would give at the trial. He recalled the force of the blow and tried to wish it back.

Wayne cursed himself blindly for an idiot. His smug conviction of a few minutes ago had evaporated. He was desperately frightened.

He bent to Lamb. Felt for his heart. The chest was all a flutter.

One heart was in good working order.

Two hearts were in good working order.

Three hearts were in good working order.

Four hearts were in good working order.

Wayne looked at the dry skin and thought of the numerous hearts. A man with that many hearts might be very old. Possibly two hundred years old. Possibly five hundred years old. It wasn't a question of simple addition. Each heart

needed to work only every fourth beat, except in times of stress, and a heart would probably last ten or twenty times as long that way.

This one, Wayne knew, wasn't human.

The conquest of a planet is, seemingly, a hardy undertaking. Territory must be scouted in advance. Plans laid carefully for several years. And even then, the logistic problems alone are immense. But if the planet is sufficiently disunited to offer very little resistance indeed, then the game is probably worth the candle.

But once the Earth was alive to the menace, the aliens wanted no part of it.

The statesmen took a great deal of credit for the speedy unification of the planet. It is altogether fitting and proper that they should do this. For they solved a great many problems almost over night. As soon as they realized the problems couldn't be postponed.

As usual, however, some people pointed out that the salvation was in consequence of past sins. They remarked that if there had been no censorship, Wayne Chambers would never have discovered the aliens in the first place. For they could have transmitted information among themselves with impunity.

But others pointed out that if it hadn't been for censorship, and the things it was a sign of, we would have met the aliens halfway—somewhere on the other side of Cassiopeia, say.



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You cannot build a time machine, but you can build a radio-controlled model aeroplane that will manoeuvre like its full size counterpart, even to the extent of dropping bombs or parachutes.

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Book Reviews



FICTION

THE SWORD OF RHIANNON by Leigh Brackett. T. V. Boardman & Co. Ltd., 9s. 6d., 208 pp.

The best way to describe this book is to call it a futuristic historical romance, a contradiction in terms, perhaps, but that is exactly what it is. Matt Carse, interplanetary adventurer, learns from a small-time thief of a newly-discovered tomb which contained the fabulous Sword of Rhiannon. Rhiannon was one of the ancient gods of Mars who had misused his powers and had been punished by the incredibly ancient Science Lords of that era.

Going to the tomb, Matt is pushed by the thief into a mysterious ball of darkness and, when he emerges, he is back a million years in the forgotten past of Mars.

From then on adventure takes over and wonderful adventure it is. There are tall ships and beautiful women, strange life forms and lurking menace, viking-like sea rovers and their brooding enemies of the Caer Dhu. And there is Rhiannon himself, not dead, but imprisoned in stasis, and who has entered into the body of the adventurer in order to escape his prison.

Coupled with his strange ally, Matt Carse runs the gamut of the strange world of a long-dead Mars. Arrested, chained to the oar as a galley slave, tempted by the lovely, wanton Princess Ywain, abetted by the self-seeking, diplomatic thief, Boghaz, Matt breaks free, takes over the ship in a welter of slaughter and joins the sea rovers. Even there he is not trusted owing to the personality which shares his body and mind. Intrigue enables him to escape, and finally meet and defeat the enigmatic Caer Dhu and the ending is as satisfactory as anyone could wish.

If you like fast action, singing steel, heroic characters and lusty, physical adventure, coupled with all the trappings of fantasy tinged with science, then this book is for you.

THE RED PLANET by Charles Chilton. Herbert Jenkins Ltd., 10s. 6d., 208 pp.

This is the second book of the B.B.C. serial *Journey Into Space* and, as such, will be familiar to millions who both heard and enjoyed the adventures of Jet Morgan, Lemmy, Mitch and Doc on their first journey to Mars.

The story is told from the viewpoint of "Doc," one of the original adventurers, and who travels in the flagship *Discovery*. From the beginning the venture was ill-omened, strange happenings threw a shadow of what was to come and the enigmatic Whitaker presented a mystery, inexplicable, until they reached their destination.

On Mars they meet "conditioned" personnel; Earthmen who have been kidnapped by the Martians, their metabolism altered so that they can live on Mars, and who are working for their captors. The work they are doing is nothing less than the preparation of a gigantic space fleet with which to invade Earth. In a flurry of exciting action the remnants of the expedition make their escape and manage to carry word of the threatened danger.

The book follows very closely the original serial and is just as entertaining.

NO REFUGE by John Boland. Michael Joseph Ltd., 12s. 6d., 254 pp.

The "gimmick" of a strange civilization existing on our

world, continuing its own life and culture utterly divorced from the impact of the lands around it, is neither new nor need it be unduly uninteresting, even though, with modern methods of transport, it verges on the fantastic. Once accepted, however, the concept can lead, as it has done in the past, to a most interesting and entertaining story. This book, however, does not fall into that class.

Two men, Robert Claymore, an English bank manager, and Geoffrey Leary, a Canadian pilot, conspire together to rob the bank of which Claymore is manager. They do so, escaping in an aeroplane purchased by Leary, with a million dollars in currency, heading for a cabin, also arranged by Leary, hidden in the wilds of Canada. Shortly after they commence their flight Leary gets hopelessly drunk, Claymore takes over the plane, crashes it, loses consciousness and wakes to find himself in a mysterious country called Yademos—Someday, spelt backwards.

Yademos is mysterious in more ways than one. The inhabitants have full knowledge of electronics, consider internal combustion engines to be "antiques" and yet are held in isolation by a ring of mountains which cuts off all communication with the outside world. Despite this, they have a knowledge of English so that communication is no problem.

The story then concerns itself with the usual question and answer, the wads of explanation and past history of the region. The two criminals, who insist on refusing to believe in common sense, the intelligence of the inhabitants and the need for co-operative effort, go on a guided tour of Yademos in which they are treated to the somewhat gory spectacle of the local brand of justice.

Unfortunately, the main action is concerned with the efforts—or rather arguments—of the two criminals trying to repair their aeroplane in order to escape with their loot. As neither trusts the other, they end by each getting what is due to them.

BEST SF, TWO edited by Edmund Crispin. Faber & Faber, 15s., 294 pp.

Any anthology entitling itself the "best" can only be accepted with the reservation that it is what the editor con-

siders to be the best, and then only the best of what material is available. With the winnowing and gleaning of stories for anthologies for the past few years, this collection of fourteen stories is a remarkable achievement, both in the high quality of the stories, and the fact that most of them will be new to the majority of readers.

The editor has done a good job in bringing together: *Una*, by John Wyndham; *Placet is a Crazy Place*, by Frederic Brown; *Blowups Happen*, by Robert Heinlein; *Little Lost Robot*, by Isaac Asimov; *The Nine Billion Names of God*, by Arthur C. Clarke; *Zero Hour*, by Ray Bradbury; *The Altar at Midnight*, by C. M. Kornbluth; *Hobson's Choice*, by Alfred Bester; *Angels Egg*, by Edgar Pangbourne; *When You're Smiling*, by Theodore Sturgeon; *Worrywart*, by Clifford Simack; *Imposter*, by Philip K. Dick; *Outside*, by Brian W. Aldis; and *The Copper Dahlia*, by Gerald Kersch.

A combination of writing talent which justifies the title, even if the stories, a blend of humour, subtle horror, thought-provoking ideas and uncomfortable suggestions all overlaid by a high entertainment value, falls short. Which it doesn't.

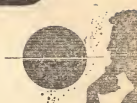
THE SEEDS OF TIME by John Wyndham. Michael Joseph Ltd., 12s. 6d., 253 pp.

John Wyndham needs no introduction. He is a writer who is a master of his craft and has a smooth, subtle, intensely human way of telling a story. In this collection of ten of his works he proves again that he is a master of perfect timing, avoiding the strained climax, the obvious cliché and unbelievable character.

Chronoclasm is gentle humour; *Time to Rest* is nostalgia; *Meteor* is what could happen—and may have done; *Survival* is horror, while *Pawley's Peepholes* is humour again. The other half of the book is just as well balanced with: *Opposite Number*, *Pillar to Post*, *Dumb Martian*, *Compassion Circuit* and *Wild Flower*.

Read them all at a sitting, read them one at a time, read them in the bus, in bed or at lunch time. But read them. You won't regret it.

Discussions



INFORMATION WANTED

It is for some considerable years that I have pondered and experimented with magnetism—allied to gravity. Your article in No. 65 is very interesting. Where I am situated no specific data in respect of anything is obtainable.

I would regard it as a favour if you could provide me with the amount of attraction or repulsion per cubic centimetre or square inch at any specific distance from a magnet to an object. I ask this because I have effected a method of revolution of a wheel which is practically continuous but I lack sufficient operative data. Perhaps you could advise me?

Capt. G. E. Michalls,
c/o P.O. Barclays Bank,
Ndola, N. Rhodesia.

The unit magnet pole is that pole which, placed 1 cm from an equal and similar pole repels it with a force of 1 dyne. The force between magnetic poles is given by

$$f = \frac{m \ m}{d^2}$$
where f = mutual force in dynes, d = distance apart in centi-

metres, m m are the pole strengths. The intensity of magnetization is the pole strength per sq. cm. of cross section. If m is the pole strength and a the cross-sectional area, then intensity is found by

$I = \frac{m}{a}$. *The magnetic field intensity at any point is the force in dynes which would be experienced by a unit North pole placed at that point. The intensity of a field due to a bar magnet can be found; (a) Intensity at a point on the axis of the magnet produced = $2md/(d^2 - l^2)^{3/2} = 2m/d^3$ approx if l is small compared with d.*

(b) Intensity at a point on a line perpendicular to axis of magnet and passing through its mid-point = $m/(d^2 + l^2)^{3/2} = m/d^3$ approx. if l is small compared with d. In each case m = magnetic moment of magnet, 2l magnetic length, d = distance in centimetres from mid-point of magnet.

The subject is rather complex to be dealt with in this column, and further information may be obtained from most advanced textbooks up to G.C.R. level.

CALLING FANS

My main purpose in writing is to ask you if you could give me the address of my nearest Science Fiction Club.

I have come to the conclusion that I am not exactly alone as a science fiction reader. I am, nevertheless, apparently living in a district where such readers are non-existent.

Your magazine is, without question, at the top of its class. My own preference as to contents are: plenty of short stories mixed with about twenty-five per cent. of articles; and, please, let's have more Dusty Dribble stories.

F. E. Batron, 447 Rednal Road, West Heath, Birmingham, 31.

I don't know the exact address of the nearest club, but I feel sure that it won't be long before you are contacted by others in your area with like interests.

PRAISE

I have closely followed the various stages of development from *Authentic's* early days up to the present. The most satisfactory thing about this experience has been the vigour and versatility of the growth. There has, however, been some talk about the mag being a one hundred per cent. perfect, which is stretching optimism too far. We mustn't fall into the slough of complacency; if *Authentic* is to stay supreme it must accept the responsibility of the position, continuing to lead the way by more technical experiments, searching for new talent and introducing new features.

Here are a few criticisms and suggestions—you asked for 'em. First, the stories, the standard of which, on the whole, is good, with occasionally a very good one. But this obsession for short stories instead of a lead novel is a bad thing. I know that the basis of science fiction writing is rooted in the short story which, obviously, requires a slightly different technique of writing, but unless authors are encouraged to write full-length stories, giving them a chance to expand their plots and characters, we will be in danger of losing promising young writers. Imagine a theme like *War of the Worlds*, or *20,000 Leagues Under the Sea*, condensed into a 2,000-word story; then don't! Serialize a lead novel by all means, two, three or even more instalments, that should surely allow you enough time between stories to select first-class material.

Concerning authors, Bulmer and Burke can always be relied on for a good yarn, but my favourite in your pages is Quattrochi. Why not a lead story from him? And what on earth happened to Charles L. Harness? A "Rose," by any other name, and all your shortcomings would be forgiven.

Articles are first class, original and cover a diversity of subjects. Keep it that way. I would like a series dealing with present experimental trends in Anthropology, Sociology and Human Behaviour.

Cover illustrations have steadily improved, and are now of a high standard, but I preferred the 56-57-58 layout to the present one. Interior illustrations are a thorny problem; one expects a lot

AUTHENTIC SCIENCE FICTION

of illustrations in an SF mag because, I suppose, it is a field which gives an artist a wider scope for his imagination than any other. Personally, unless the illustrations are of the highest quality, I would rather have the space used for words. Why not a series of illustrated articles about modern art and its allied fields?

One final moan. I cannot for the life of me see why you waste precious paper with advertisements.

To sum up then, I think that in the last two years the progress of *Authentic* has been outstanding, and it must rank as one of the most mature science fiction magazines, not only in this country, where it has no equal, but also in the field of science fiction internationally. Keep it up.

B. R. Frayne,
1 Broomhall Cottages,
Bath Road, Clerkenleap,
Nr. Worcs.

The search for new writing talent is continuous—as are efforts to improve the magazine.

EXCHANGE MART

May we use the medium of your correspondence column to bring to the attention of readers of *Authentic* the existence of a

Science Fiction Exchange Mart? A stamped addressed envelope will bring details.

Terance M. Keirans,
Gordon T. Dyos,
47 Abbott Road,
Didcot, Berks.

Anything to oblige.

NOT SO GOOD

I have only been reading *Authentic* for a year, and I don't think any of your subsequent issues measure up to No. 41. All the stories in that issue were good, with the exception of one, which I found to be rather boring. Since then most of your longer stories have been O.K., but such a lot of the short ones haven't been up to much.

Your covers are very good, I think, especially No. 67, but do we have to have those horrible interior illustrations?

Looking back on my letter, it appears to be full of moans. So I would like to say that, compared to other SF mags on the market, *Authentic* is pretty good.

Mrs. P. Williams,
6 Lansdowne Square,
Weymouth, Dorset.

Thank You!

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Mr. G. M., Brighton.

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Miss M. J., Denbigh.

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